

NPI solutions

Welcome to the NPI brochure from Avnet Abacus, our round up of the latest product and technology innovations to enhance your design. Click on the pictures to view full product details and datasheets.

Featured manufacturers













































Content

PRODUCTS

Connectors	4
Electromechanical	17
Passive	20
Power	36
RF and wireless	41
Sensors	44
LINECARDS	
Connectors	47
Electromechanical	48
Passive	49
Wireless	50
Wireless charging	50
Antennas	50
Batteries	51
Power	51
Sensors	52



AMPHENOL ICC - AURORA FFC/FPC 0.5MM CONNECTORS



VIEW PRODUCT DETAILS

Amphenol ICC's Aorora 0.50mm pitch flex connectors utilise 0.50mm contact spacing to terminate mobile devices across a variety of applications. These connectors are offered with top, bottom, dual beams, and dual contact positions with both ZIF (Zero Insertion Force) and non-ZIF cable terminations. The connector series comes with a wide height range of 1.25mm to 5.80mm with 4 to 80 contact positions in both vertical and right-angle orientations. The 0.50mm pitch FFC/FPC connectors are available with front/back/vertical flip and slider mechanisms and feature surface-mount termination

Features and benefits

- · Higher pin count
- Dual beams
- Right-angle and vertical options
- Front/back flip and slider lock mechanisms promote strong FFC/FPC retention
- · Lead- and halogen-free products
- · Allows for design flexibility
- Enables stable connection and contact reliability
- · Easy to operate and vibration-proof

Applications

- · Car multimedia
- Car navigation
- Dashboard
- PND
- Base station
- Power
- Switches
- Notebook
- Tablets
- Wearables etc.



AMPHENOL ICC - BERGSTAK® 0.80MM SHIELDED BOARD-TO-BOARD CONNECTORS



VIEW PRODUCT DETAILS

high signal quality, and time-proven reliability under extended periods of application. Bergstak® shielded connectors with 0.80mm pitch supports high-speed data applications up to 10Gb/s. These connectors feature a shielded design that provides superior EMC performance and significantly improved electromagnetic compatibility.

Amphenol ICC's BergStak® 0.80mm connector family is known for its fast data transmission,

Features and benefits

- · EMC shielding
- Significantly reduced coupling inductance leading to excellent electromagnetic compatibility
- 64 positions , with 40 to 140 contact options
- 20mm stack height, with options from 9mm to 20mm
- Application flexibility
- Supports data rate from 2.5Gb/s up to 10Gb/s
- Meets PCIe® gen. 1 to gen. 3 and 10G base KR specifications
- Self-alignment feature
- Prevents misalignment, delivers consistent reliability and high performance
- Scoop-proof housings
- · Prevents reverse mating
- Available in UL94V-0 material

- · High flammability rating
- Lead-free and RoHs compliant
- Meets environmental, health and safety requirements

- Communications
- Data
- Industrial and instrumentation
- Medical



AMPHENOL ICC - IX INDUSTRIAL™ IP20 CONNECTORS



VIEW PRODUCT DETAILS

ix Industrial™ connectors enable IoT connectivity for Ethernet and other industrial protocols through all levels of an operation from the enterprise/cloud to the sensors/actuators on the factory floor. These 10mm pitch connectors featuring 2-point metal latches are just 25% of the size of an RJ45 connector, and as such allow much greater port density and mating security. They are PoE capable, provide data performance to cat. 6A level (10G Base-T), and feature 360° shielding through the mated pair for superior EMI protection.

Features and benefits

- Complies with IEC61076-3-124
- Fully qualified second source intermateable with other vendors' products
- 75% smaller than RJ45
- 10mm connector pitch provides greater port density
- 10 position connector with cat. 6A 10G base-T performance and PoE capability
- Supports Ethernet/IP and common protocols including
- Profinet, DeviceNet, EtherCAT, Modbus and others
- 360° shielding through mated pair
- Provides excellent EMI immunity for use in electrically noisy environments
- 2-point metal latching
- Extremely robust mating to prevent accidental disconnection, and more durable than RJ45 latch
- Heavy duty shield solder hold-down tabs on PCB mount receptacles

- Provides secure connection to the PCB protecting SMT joint integrity under mechanical stresses
- 5000 mating cycles
- · High durability
- Field terminable IDC plugs with solder options
- Ease of custom cabling or repair in the field with IDC contacts
- Solder version for high volume assembly
- Keyed housings (type-A, -B, -C)

Applications

- Industrial
- Healthcare
- Communications
- Controlled mating for Ethernet, signal/bus, other ports



AMPHENOL ICC - MINITEK MICROSPACE™ 1.27MM CRIMP-TO-WIRE CONNECTORS



VIEW PRODUCT DETAILS

MicroSpace $^{\text{TM}}$ will be available in single and double row versions, with top and side latch configuration.

Amphenol ICC's FCI Basics Minitek MicroSpace™ crimp-to-wire connector platform's unique design enables LV214 severity-2 and performs at 1.8mm, 1.5mm and 1.27mm pitch. Minitek

Features and benefits

- Design based on existing and proven design controls
- Suitable for harsh environments
- Existing crimp section and automated crimp tooling up to 22AWG
- No specific industrial tools required
- 4N normal force for vibration and >75N connector locking strength
- High vibration and locking resistance
- Poka-yoke polarisation
- Visual mismatching prevention system

- Industrial and instrumentation:
- > Lighting
- Automotive:
- > Camera/sensor
- > Cluster/navigation
- > HVAC
- > Headliner
- > Lighting
- > Power steering
- > Radio/DVD



AMPHENOL ICC - MINITEK® BOARD-IN 2.00MM AND 2.50MM CONNECTORS



VIEW PRODUCT DETAILS

The Minitek® board-in connector system is a flexible solution designed for economical and permanent wire-to-board applications up to 3A. It is a one-piece direct solder-to-board solution that provides space and cost savings compared to a two-piece connector system. It is currently offered in 2 to 16 positions under 2mm and 2.50mm pitch sizes covering vertical and horizontal configurations. Minitek® Board-In is ideal for applications in consumer, datacom, industrial and instrumentation and automotive markets.

Features and benefits

- Accepts standard through hole soldering methods
- · More reliable compared to hand soldering
- One-piece direct solder-to board assembly
- Provides space and cost saving compared to the two-piece connector system
- · Offered in two pitches and multiple circuit sizes
- Design flexibility
- Vertical and horizontal configuration
- Suitable for applications with limited space
- Terminal and housing locking features
- Secure connection

Applications

- Infotainment
- Lighting
- · Base stations
- Telecom box
- WiMax box
- Rack box
- Set top box
- HVAC
- · White goods
- · Home entertainment
- Servers
- Desktops
- HDD
- Monitors
- · Factory automation
- Power tools
- · Security systems



AMPHENOL SV MICROWAVE - SUPERFLEX Ø.047 CABLE ASSEMBLIES



VIEW PRODUCT DETAILS



Amphenol SV Microwave has launched 6 RF cable assemblies using its most flexible Ø.047 cable. This super flexible coax cable is capable of extreme bends which allow it to fit in tight spaces and route for any application. These fixed length cable assemblies utilise SMA and/or SMPM series connectors and are available in 6" and 12" lengths.

Features and benefits

- · Fits all standard interfaces including: SMA, 2.92mm, 2.4mm, 1.85mm and SMPx
- · Custom and standard cable assembly options available
- Inside bend radius of .0625"
- · Low solder wicking for high flexibility behind the cable ferrule
- · Extreme bends allow cables to fit in the smallest of spaces
- · High flex-life ensures excellent performance after repeated usage
- Helically wrapped outer conductor ensures excellent RF shielding
- · Low flex resistance transfers less force to blindmate interfaces and solder joints
- · Coming soon to SV's rapid response cable builder

BEL STEWART CONNECTOR - SEALJACK™ RJ45 TO RJ45 PCB COUPLER



Stewart's SealJack™ RJ45 to RJ45 PCB coupler provides reliability and functionality when Ethernet begins to move outside the typical office environment. Stewart's SealJack™ PCB coupler utilises the right angle SealJack™ RJ45 jack to provide a sealed solution when mounting the coupler to a box. This coupler design is robust, compact and able to achieve 2.5Gb transmission speeds.

Features and benefits

- IP67 panel mount RJ45 to RJ45 coupler
- 4-40 threaded blind pockets for mounting
- Compact design helps to maximise box realestate
- · Shielded configuration
- LEDs available
- Supports PoE
- · RoHS compliant

Applications

- Industrial environments
- · Connectivity for non-office environments
- Renewable energy industry
- · Industrial environments
- Military communication
- Medical devices
- Test equipment

VIEW PRODUCT DETAILS

CINCH CONNECTIVITY - COMMERCIAL GRADE 2.4MM AND 2.92MM RF TERMINATIONS



Midwest Microwave commercial grade terminations are designed to meet the requirements of today's commercial operating systems applications and offer the best combination of price and performance. All terminations are 100% tested to ensure high reliability and performance.

Features and benefits

- Best combination of price and performance
- For all commercial use
- 40GHz operation for 2.92mm models
- 50GHz operation for 2.4mm models
- Passivated stainless-steel construction
- Male and female versions available

Applications

- Active antenna systems
- 5G network hardware
- Test setups
- Lab use

VIEW PRODUCT DETAILS (



CINCH CONNECTIVITY - JOHNSON™ 2.92MM 40GHZ TEST CABLE ASSEMBLIES



The Johnson™ 2.92mm straight plug, 40GHz test cable assemblies allow connectivity in engineering lab and manufacturing environments for precision test and measurement applications. Johnson 2.92mm test cable assemblies are available in both imperial and metric lengths. Customised configurations available by request.

Features and benefits

- Excellent operating performance to 40GHz
- VSWR max. of 1.25
- Vp, velocity of propagation of 76%

Applications

- Test and measurement equipment
- · Manufacturing lab
- LAN router
- WAN system equipment

VIEW PRODUCT DETAILS

HARWIN - DATAMATE MIX-TEK CONNECTORS



VIEW PRODUCT DETAILS



Datamate Mix-Tek is a 2mm pitch (signal) and 4mm pitch (power/coaxial) high-reliability, high performance connector range with a proven track record for performance under extreme conditions.

Features and benefits

- Multiple current capacity options 3A (signal), 20A (power), 40A (high power)
- Low to high current options for maximum flexibility in a compact connector
- Multiport 50Ω , 6GHz coaxial ganged contacts
- Ready-to-use cable connectors and mating cable assemblies also available
- Beryllium copper contacts with -55°C to +125°C temperature range
- Rugged and durable connector design with proven track record
- Thousands of combinations available from
- Off-the-shelf without lead-time, supported by a global distributor network
- · Stainless steel jackscrews suitable for standard or reverse fixing

- 101Lok fixing option to ensure vibration and shock requirements are met, and to give maximum strain relief in cable-to-board configurations
- Fast mating bayonet fixing for simple and speedy mating and unmating

- · Aerospace, defense and security
- Motorsport
- Space
- Energy
- High-end professional electronics
- Medical



MOLEX - MX150 SEALED HYBRID AND PANEL MOUNT CONNECTOR SYSTEM (160111, 160112, 160078, 148028 SERIES)



VIEW PRODUCT DETAILS

The field-proven MX150 sealed connector system with a USCAR interface offers a compact package, a superior operating temperature and a current rating up to 22A for power and signal, automotive and commercial vehicle applications.

Features and benefits

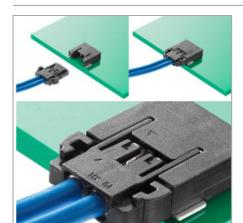
- · Matte seal technology
- Preassembled Terminal Position Assurance (TPA) housing
- Conforms to USCAR-2/USCAR-21/GMW3191
- Temperature class 4 (-40°C to +150°C) and 22A current rating
- Connector Position Assurance (CPA) option available
- V0 versions available (UL1977 certified)
- Grommet cap
- Flashover options (custom void patterns) available
- 4 polarisation and colour options

Applications

- Automotive and commercial vehicle:
- > Transmissions
- > Head/tail lamps
- > Body harnesses
- > Wipers, washers, defoggers
- > Speedometers
- > A/C modules
- > Turn signals
- > Airbag harnesses
- > Speakers
- > Door connectors
- > Brake modules
- > Horns



MOLEX - PICO-LOCK WIRE-TO-BOARD 2MM PITCH CONNECTORS (205338, 205341, 205342 SERIES)



Features and benefits

secure locking.

- Beveled header in pin design
- Ultra-low-profile mated height
- Wide robust-fitting nails (solder tabs)
- Top friction locks
- Side positive locks
- Mating guide for polarisation
- Supports up to 6.5A current applications
- Ultra-low mated height of 2.60mm is less than half the height of other micro connectors
- Two types of crimp barrel
- Side positive lock

Applications

This connector is available in 1mm, 1.50mm and 2mm pitch. The Pico-Lock wire-to-board connector system is ideal for applications requiring ultra-low profile, high-current and

- Automotive
- Consumer
- Industrial
- Telecommunications/networking

BUY NOW

VIEW PRODUCT DETAILS

MOLEX - MINI-FIT SIGMA SEALED POWER CONNECTORS (207017, 207019 SERIES)



Mini-Fit Sigma sealed wire-to-wire connectors utilise traditional Mini-Fit TPA2 terminals and wire gauges while providing protection from water, foam and dust debris ingress.

Features and benefits

- Panel mount ears recommended panel cutouts for 0.89mm to 3mm thick panels
- Panel cut-out tolerances +0.10mm
- TPA supports
- Seal cap supports
- Keying and polarisation
- TPA stop
- Elongated contact points

Applications

- Commercial vehicle
- · Home appliance
- Consumer
- · Industrial automation





MOLEX - MICRO-LOCK PLUS WIRE-TO-BOARD 1.25MM PITCH DUAL-ROW CONNECTORS WITH POTTING CAPABILITY (207760, 204523 SERIES)



VIEW PRODUCT DETAILS

One of the smallest wire-to-board "potting" connectors, with 3mm (single-row) and 6mm (dual-row) high potting material to safeguard contact and latch areas in applications requiring environmental protection.

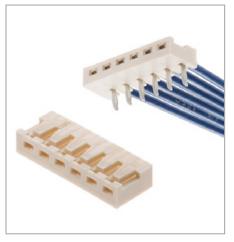
Features and benefits

- Withstands up to +105°C operating temperatures
- Tin-Bismuth terminals
- Robust metal solder tabs
- Smallest 1.25mm-pitch vertical header with positive lock and potting capability
- Wide positive latch that delivers audible click
- Positive lock immersed in potting material
- Potting liquid (up to 6mm height)
- Added walls to protect positive lock from being immersed in potting material
- Potting liquid (up to 3mm height)

- Industrial
- > Power tools
- > Test equipment
- > Robots
- > Factory automation
- > Drones
- > Vending machines
- Consumer
- > Refrigerators
- > Air conditioners
- > Hot water gas heaters



MOLEX - 2.50MM BOARD-IN CONNECTOR (212415 SERIES)



The 2.50mm board-in connectors product line, designed for automotive and industrial applications, complies with major industry standards and features improved terminal pin position and wider operating temperature ranges.

Features and benefits

- · Larger wire accommodation
- One-piece molded housing
- Improved terminal pin position
- Wider operating temperature range
- Compatible PCB hole and pattern

Applications

- Automotive
- Medical
- Industrial
- Home appliances







MOLEX - MICRO-LOCK PLUS WIRE-TO-BOARD 1.25MM PITCH DUAL-ROW GOLD PLATING **CONNECTORS (505433, 505448 SERIES)**



VIEW PRODUCT DETAILS

The Micro-Lock Plus wire-to-board connector system provides electrical and mechanical reliability in a high-temperature design that meets other industry requirements.

Features and benefits

- Smallest 1.25mm-pitch connector with positive lock
- 2 to 42 circuits, single and dual rows, vertical and horizontal plug configurations
- · Wide positive latch that delivers audible click
- Robust metal solder tabs
- Inner lock for dual-row versions; outer lock for single-row versions
- · Dual-contact terminal design
- Withstands up to +105°C operating temperature
- · Gold-plated headers, plugs and terminals
- Tin-bismuth terminals
- 2 to 16 circuits, single-row plug in vertical and horizontal configurations
- 2mm-pitch connector with positive lock
- · SMT terminals
- Wide positive latch that delivers audible click

- Robust metal solder tabs
- Low-halogen and high temperature capabilities

- Datacom
- Consumer
- Automotive



MOLEX - IGRID 2MM DUAL-ROW WIRE-TO-BOARD CONNECTORS WITH POSITIVE LOCK



The Molex iGrid 2mm dual-row wire-to-board connector with positive lock is available with gold-plated terminals. iGrid 2.0 connectors support higher electrical conductivity for a variety of data, industrial and consumer wire-to-board applications.

Features and benefits

- Multiple color options
- · High (header) housing wall
- Anti-angle mating structure
- Available in vertical and right-angle orientations with tin- and gold-plating options
- Latch guard
- Internal positive lock
- · Locating peg (boss)

Applications

- Datacom
- Consumer
- Industrial
- Automotive

BUY NOW



MOLEX - PRE-CRIMPED LEADS



VIEW PRODUCT DETAILS

Molex's range of pre-crimped leads offers a simple, cost-effective solution for prototyping, pre-production and mass production requirements. These leads are offered in female-to-female and male-to-male configurations in lengths of 75mm to 600mm.

Features and benefits

- Pre-crimped and fully tested cables
- Available in 75mm to 600mm lengths
- Leads crimped on both ends
- UL listed cables
- Available for most popular Molex families
- Decrease time to market
- Works well for all prototype and preproduction requirements
- Allows for wire-to-wire applications and when cut in half, wire-to-board applications
- Assures high-quality approved materials
- Helps customers choose the right connector before investing in application tooling



MOLEX - PREMO-FLEX NOTCHED CABLE JUMPERS WITH EAR TABS



Molex Premo-Flex notched cable jumpers with ear tabs deliver durable and extra flexible PCB-connection solutions. The standard Premo-Flex FD19 cable jumpers (series 15018) provide robust retention due to a unique notched design.

Features and benefits

- Mates with easy-on FFC/FPC connector (series 505110)
- 0.50mm pitch
- Ear tab retention feature
- Simple assembly process

Applications

- Automotive
- · Commercial vehicle
- Industrial
- Home appliance
- Consumer

VIEW PRODUCT DETAILS



OMRON - XP2U SERIES USB TYPE-C MODULE TEST SOCKET



Omron Electronics XP2U test sockets are designed for testing electronic devices that have a USB type-C I/O connector. Omron XP2U sockets allow the user to connect to the testing equipment by one-touch connection to the USB Type-C connector. XP2U is ideal for testing smartphones, handheld game consoles, digital cameras, headphones, notebook computers, and more.

Features and benefits

- Equipped with a USB Type-C 3.1 compliant connector
- Includes installation hole that enables attachment on equipment
- Testing can be accomplished by inserting the connector into the USB Type-C socket on the electronic device
- User can connect to the testing equipment by one-touch connection to the USB Type-C connector

Applications

- Smartphones
- · Handheld games
- Digital cameras
- Headphones
- Laptops

VIEW PRODUCT DETAILS



SCHURTER - 4783 SERIES C13 REWIREABLE IEC APPLIANCE INLET



The 4783 series IEC appliance from SCHURTER is the first of its kind: for the first time it combines a reconnectable C13 appliance inlet with the proven V-Lock cord retention system. Available in black, white and grey for better differentiation - e.g. in 3-phase systems. Reconnectable appliance sockets are particularly suitable for small series builds. With these inlets you are free to choose the cable length and country-specific plugs.



TE CONNECTIVITY - 1MM CENTERLINE LOCKING HPI CONNECTORS



VIEW PRODUCT DETAILS (-

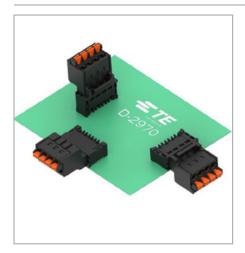
TE Connectivity's 1mm centerline locking High Performance Interconnect (HPI) solution addresses the needs of low-profile applications that require a reliable, secure wire-to-board signal or low-power connection. A locking feature strengthens the mating connection between the plug assembly and the receptacle and provides an audible and tactile click feedback when mating. TE Connectivity's broad portfolio is available in right angle and vertical PCB mounting orientation, position sizes ranging from 3 to 15 and gold and tin plating options.

Features and benefits

- Locking feature strengthens the mating connection between the plug assembly and the receptacle and helps alleviate accidental unmating from pulling
- Audible and tactile click feedback when mating provides confirmation of a secure connection
- Gold plating options are available to protect against erosion in harsh environment applications
- Broad portfolio includes right angle and vertical PCB mounting options, position sizes ranging from 3 to 15 and gold and tin plating options

- Data center servers
- Consumer electronics
- Drones
- Printers
- · Home appliances
- Automotive infotainment
- Medical devices

TE CONNECTIVITY - DYNAMIC SERIES D-2970 FLEX PUSH CONNECTOR



VIEW PRODUCT DETAIL

TE Connectivity's Dynamic series D-2970 is a compact 5-mm pitch wire-to-board PCB connector with field-installable, time-saving push-in clamp termination.

Features and benefits

- The push-in clamp and single-hand-operating centre-locking lever - both designed to require no tooling - make it possible to cut mating time by up to 90% compared with connectors using screw-latch locking systems
- The centre-locking lever has clear tactile and audible mating feedback to ensure safe mating
- Tool-less wire release is also possible, thanks to the 50% lower insertion force, which allows users to release the wire without injuring their fingertips
- · All designs of male header mate with the same female plug, providing electronics designers flexibility
- The D-2970 PCB connector family is a powerful addition to TE's well-known Dynamic series and is fully equipped to meet customers' high standards regarding installation and application safety, also saving valuable process time and application space

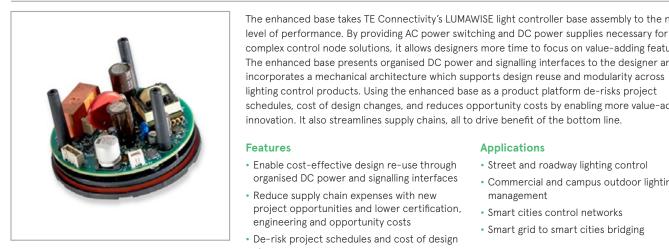
• The D-2970 will be fully compliant with UL and IEC regulations and extensively tested at UL and VDE certified laboratories, supporting customer approval processes

Applications

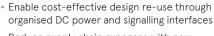
- Servo drive/inverter drive power inlet/outlet
- Industrial microcontrols
- · Robot and cobot control units
- PLCs power inlet/outlet
- Controls in building automation and household appliances



TE CONNECTIVITY - LUMAWISE ENDURANCE N TOOL-LESS ROTATABLE DIMMING RECEPTACLE ASSEMBLY



VIEW PRODUCT DETAILS



Features

· Reduce supply chain expenses with new project opportunities and lower certification, engineering and opportunity costs

• De-risk project schedules and cost of design

· Improve manufacturability and further innovation focus

Applications

The enhanced base takes TE Connectivity's LUMAWISE light controller base assembly to the next

complex control node solutions, it allows designers more time to focus on value-adding features. The enhanced base presents organised DC power and signalling interfaces to the designer and

lighting control products. Using the enhanced base as a product platform de-risks project schedules, cost of design changes, and reduces opportunity costs by enabling more value-adding

- Street and roadway lighting control
- Commercial and campus outdoor lighting management
- Smart cities control networks
- · Smart grid to smart cities bridging

TE CONNECTIVITY - PCON 12 ONE-POSITION 90° UNSEALED CONNECTOR



VIEW PRODUCT DETAILS

The PCON 12 offers a one-position, unsealed power connection with positive and negative markings on each connector. Its 90° terminal orientation makes it ideal for establishing power connections in extremely cramped in-cabin spaces. Constructed of flame-retardant UL 94 V-0 material with three colour-coding options, the PCON 12 facilitates easy assembly and reduces improper mating offering a cost-effective solution for high-power applications.

Features and benefits

- Offers a secure solution with flame-retardant UL 94 V-0 material
- Provides an audible click for enhanced security with dual, side-actuated snap-in locking feature
- Facilitates easy assembly with single-pole 90° cable exit configuration and dual housing slots
- Reduces improper mating with three colorcoding options available
- Offers a simple and cost-effective solution to meet customer's high-power needs

Applications

- In-cabin
- Bulkhead
- Control unit

TE CONNECTIVITY - SUPERSEAL PRO 2 POSITION SEALED CONNECTOR



VIEW PRODUCT DETAILS



TE Connectivity's SUPERSEAL Pro 2 position sealed connector is a high-value connector for lower vibration chassis applications specially designed to maintain electrical performance in sealed inline applications.

The SUPERSEAL Pro 2 position connector is constructed from UL 94 VO flame-retardant material. The MCON 1.2 single wire seal terminal enables accurate signal transfer in harsh environments. With colour-coded TPA options, the SUPERSEAL pro 2 position connector allows easy assembly.

Features and benefits

- Design with proven MCON 1.2 Single Wire Seal (SWS) terminals offering a 17A current carrying capacity and vibration resistance in compliance with USCAR V2
- Achieve sealing levels of IP67/IP68/IP6K9K (with backshell) with enhanced seal retention features
- Improve flammability rating with UL 94 VO PBT material
- Improve terminal retention and ensure proper position with standard Terminal Position Assurance (TPA)
- Ease assembly with pre-assembled, color-coded TPA options
- Offer cost-effective, sealed in-line solutions

- Wire-to-wire
- Sensors
- Lights
- Gauges
- Actuators
- Switches
- Solenoids



Electromechanical

CTS - 292 SERIES 20MM OPTICAL RING ENCODER



VIEW PRODUCT DETAILS

The 292 series optical ring encoder provides a reliable and durable solution to applications that require extended rotational life where traditional mechanical contacting designs fall short. The hollow shaft design allows the engineer to integrate an additional push switch or LED in the center of the unit. Power options allow for use in standard or energy efficient circuits. The integrated Schmitt trigger and pull up resistor reduce the number of components required when adding an encoder to a circuit. The reduced number of components translates into cost savings and reduction in required PCB space.

Features and benefits

- Compact Ø20mm size package
- 3 million cycles rotational life (1 million cycles with detent)
- 24 PPR resolution
- Wide operating temperature range (-10°C to +85°C) 5VDC and 3.3VDC power options
- Integrated Schmitt trigger and pull-up resistor

Applications

- · Medical diagnostic equipment
- Industrial automation controls
- Automotive HVAC controls
- > Infotainment controls
- · Professional audio and lighting equipment

OMRON - G3VM-31HR1/61HR2 HIGH CURRENT MOSFET RELAYS



VIEW PRODUCT DETAILS

The G3VM31HR1/61HR2 series from Omron offers high switching performance at 30V 4.5A/60V 4A, ideal for high power load switching. Increased switching current allows high speed switching for faster operation of equipment. These relays offer a long lifetime, making them ideal for factory automation equipment, HVAC systems and building automation.

Features and benefits

Load voltage: 20V, 30V or 40V

- 20-V relay (21HR): continuous load current of 2.5A (5A) max.
- 30-V relay (31HR): continuous load current of 4A (8A) max.
- 30-V relay (31HR1): continuous load current of 4.5 A (9 A) max.
- 40-V relay (41HR): continuous load current of 2.5A (5A) max.

Load voltage: 60V

- 60-V relay (61HR): continuous load current of 2.3A (4.6A) max.
- 60-V relay (61HR1): continuous load current of 3.3A (6.6A) max.
- 60-V relay (61HR2): continuous load current of 4A (8A) max.

- Semiconductor test equipment
- · Communication equipment
- · Test and measurement equipment
- · Security equipment
- · Industrial equipment
- Power circuits

Electromechanical

OMRON - G3VM-31QVH/31QVL/61QV2H/61QV2L/61QVH MOSFET RELAYS



VIEW PRODUCT DETAILS

Omron has extended its G3VM range of MOSFET relays with six S-VSON(L) voltage driven type models. Featuring a built-in current limiting resistor, these relays allow for simplified, space saving board layouts, and are ideal for applications that require high density mounting. Available in a variety of operating voltages, the new models are ideal for device power supplies and test signal switching equipment.

Features and benefits

- · Operating input forward voltage:
- > H/recommendation 5V (typical),
- > L/recommendation 2.5V (typical)
- Load voltage: 30V/60V
- > G3VM-31QVH/L: continuous load current of 1.5A max.
- > G3VM-61QV2H/L: continuous load current of 1A max.
- > G3VM-61QVH: continuous load current of 0.4A max.
- High ambient operating temperature: -40°C to +110°C

Applications

- · Semiconductor test equipment
- Communication equipment
- · Test and measurement equipment
- Data loggers



OMRON - G5PZ 20A POWER RELAY



The G5PZ series of 20A power relays features a compact design with slim dimensions of $10.5 \, \text{mm} \times 24 \, \text{mm}$ (WxL). The series features an energy saving low coil power consumption of $530 \, \text{mW}$ in the 20A class of relays, and long life can extend end application lifetime by approximately 100,000 operations.

Features and benefits

- 10.5mm (W) slim size and 1 pole 16A/20A switching capability
- High sensitivity of 530mW coil consumption and further saving energy with holding voltage 50%
- Min. 6.4mm of insulation distance and 10kV impulse withstand voltage (between coil and contacts)
- IEC60664-1 reinforced insulation conformed

- Air conditioners
- Home appliances
- OA equipment
- Industrial machinery





Electromechanical

OMRON - G9TA SERIES PCB TYPE AC POWER LATCHING RELAYS



Omron has launched a PCB type version of its G9TA series AC power latching relays. Featuring a rated load of 60A and a compact size of 36.7mm x 39.1mm x 18mm, this model contributes to easy assembly in production and secure electrical connection. The G9TA series PCB type is ideal for lighting, EV chargers and inverter applications.

Features and benefits

- · High power switching, compact size
- High magnetic latching force provides vibration resistance
- · Low contact resistance
- PCB terminals type available
- Conforms to UL 508 (except PCB terminals type)

Applications

- · Smart meters
- · Lighting controls
- PV inverters
- EV chargers

VIEW PRODUCT DETAILS



TE CONNECTIVITY - SSRMP MINI PUCK SERIES SOLID STATE RELAYS



TE Connectivity Potter & Brumfield Solid State Relays (SSR) are used in heating, lighting, industrial automation and industrial machinery applications. The SSRMP will add a panel mount option to the SSR range of products. With load ratings ranging from 10AMP/16AMP/25AMP at 240VAC to 480VAC, an unlimited number of switching operations, along with the ability of high-speed switching, prevents interference of external signals. The compact size provides customers space saving options and quick connect terminals offer easy installation. To limit the part numbers based on input voltage conditions, the SSRMP's input side is standard (4VDC to 32VDC) across all output ranges, which can be beneficial for customers on inventory management.

Features and benefits

- Ability to switch various load options
- · Quick connect terminals offer easy installation
- Input side is standard (4VDC to 32VDC) across all output ranges

Applications

- Motion control
- Heating control
- Power control

VIEW PRODUCT DETAILS (-

BOURNS - CC322522A SERIES AEC-Q200 COMPLIANT CHIP INDUCTORS



Bourns has introduced the CC322522A chip inductor series. The inductor is wound on a ferrite core which provides low DC resistance and high rated current. Encapsulation construction allows these inductors to retain high resistance to heat, humidity, mechanical shock and pressure.

Features and benefits

- High rated current
- High resistance to heat and humidity
- Resistance to mechanical shock and pressure
- Accurate dimensions for automatic placement
- AEC-Q200 compliant
- RoHS compliant

Applications

- RF signal processing
- · Resonant circuits and filters
- Low power management applications for:
- > Cable modems
- > Set-top boxes
- > Cellular phones
- > Tablets
- > Mobile electronic devices





BOURNS - CHP-A CHIP SERIES SULFUR-RESISTANT ULTRA-HGH POWER RESISTOR



The CHP-A series sulfur-resistant, AEC-Q200 compliant thick film resistor offers triple rated power in comparison to general purpose resistors. Available in four different footprints from 0603 (1608 metric) up to 2512 (6431 metric), the CHP-A series boasts a wide resistance range from 10ohms to 1megohm, and high rated power making it ideal for current sensing and superior pulse load applications.

Features and benefits

- Thick film technology
- Power rating up to 3W at +70°C
- Withstands high power surges
- RoHS compliant
- · Halogen free
- AEC-Q200 compliant
- Sulfur-resistant design (ASTM-B809)

Applications

- Power supplies
- Digital meters
- Consumer electronics
- LED lighting
- Industry control boards

VIEW PRODUCT DETAILS



BOURNS - CMP/CMP-A SERIES THICK FILM CHIP RESISTORS



The model CMP anti-surge thick film resistor series is available in five different footprints from 0603 (1608 metric) up to 2512 (6431 metric). This product series has a wide resistance range from 10ohms to 1megohm, high rated power up to 1.5W and superior pulse load capability.

Features and benefits

CMP series/CMP-A series

- Thick film technology
- Power rating up to 1.5W at +70°C
- · High power surge withstanding
- RoHS compliant
- · Halogen free

Applications

CMP series/CMP-A series

- Power supplies
- Digital meters
- Consumer electronics
- LED lighting
- Industry control boards

VIEW PRODUCT DETAILS

BOURNS - CR01005 SERIES THICK FILM CHIP RESISTOR



Bourns has introduced the CR01005 series thick film chip resistor. The extra small 01005 inch (0402 metric) CR01005 series broadens the general purpose thick film chip resistor family to eight different footprints up to 2512 (6431 metric).

Features and benefits

- RoHS compliant
- Tight tolerance of bottom electrode width
- 1% and 5% tolerance options
- Three layer termination process with nickel barrier helps prevent leaching and provides excellent solderability
- Tape and reel packaging

Applications

- Mobile devices
- Consumer electronics
- Industrial automation
- Power supplies
- LED lighting
- · Communication base stations

VIEW PRODUCT DETAILS



BOURNS - CRXXXXA SERIES AEC-Q200 COMPLIANT THICK FILM CHIP RESISTORS



The CRxxxxA AEC-Q200 compliant chip resistor series is available in eight different footprints from 0201 (0603 metric) up to 2512 (6431 metric) and offers rated power from 0.05W to 1W. The model CRxxxxA series has a wide resistance range from 10hm to 20megohms and is designed for general purpose applications.

Features and benefits

- Thick film technology
- Power rating up to 1W at +70°C
- RoHS compliant
- · Halogen free
- AEC-Q200 compliant

Applications

General purpose

VIEW PRODUCT DETAILS



BOURNS - SM41126EL SERIES LAN TRANSFORMER MODULE



Bourns' SM41126EL LAN transformer is RoHS compliant, IEEE 802.3 Ethernet compatible, and offers a -40° C to $+85^{\circ}$ C temperature range. This transformer is constructed with discrete chip LAN transformers and common mode chokes assembled on a PCB with a ferrous metal shield. The SM41126EL transformer is pin-to-pin compatible with the traditional potted case LAN transformer and features a lower profile and superior coplanarity.

Features and benefits

- IEEE 802.3 Ethernet compatible
- 10Mbps to 100Mbps
- Expanded temperature range: -40°C to +85°C
- RoHS compliant

Applications

· LAN interface in telecommunications and network devices

VIEW PRODUCT DETAILS (-





BOURNS - SRP0310/0315/0410/0510/0610 POWER INDUCTORS



Bourns has introduced five high current, very low profile, shielded power inductor series designed to meet today's high current density requirement and low profile assembly in various types of consumer electronics applications. These inductor series stand at 1mm and 1.5mm maximum height and are manufactured with a metal alloy powder core and flat wire featuring low core loss, low DC resistance, high current, low buzz noise, excellent temperature stability and shielded construction for low magnetic radiation. Operating temperatures range from -40°C to +125°C.

Features and benefits

- Shielded construction
- Metal alloy powder core
- Low profile: 1mm and 1.5mm
- High saturation current
- Low buzz noise
- Flat wire
- Low core loss mold compound
- · RoHS compliant and halogen free

Applications

- DC-DC converters
- Power supplies





BOURNS - SRPOXXX SERIES LOW PROFILE SHIELDED POWER INDUCTORS



Bourns has introduced eleven high current, very low profile, shielded power inductor series designed to meet today's high current density requirement in various types of consumer electronics applications. These inductor series are manufactured with a metal alloy powder core and flat wire featuring low core loss, low DC resistance, high current, low buzz noise, excellent temperature stability and shielded construction for low magnetic radiation. Operating temperatures range from -40°C to +125°C.

Features and benefits

- Shielded construction
- Metal alloy powder core
- Very low profile: <2mm
- High saturation current
- Low buzz noise
- Flat wire
- Low core loss mold compound
- RoHS compliant and halogen free

Applications

- DC-DC converters
- Power supplies

VIEW PRODUCT DETAILS



BOURNS - TBU-RS085-300-WH SERIES HIGH SPEED PROTECTOR



The Bourns TBU-RS085-300-WH is an integrated dual channel transient blocking, overcurrent and TVS overvoltage protector for the RS-485 communications interface. When coupled with a primary overvoltage protector like the Bourns GDT 2030-42T-SM-RPLF or TISP® Thyristor Surge Protector TISP4350J3BJR-S, the integrated solution aids compliance to IEC 61000-4-2 (ESD), IEC 61000-4-4 (EFT) and IEC 61000-4-5 (surge) standards.

Features and benefits

- Dual channel protector for RS-485 interfaces
- Aids compliance to IEC 61000-4-2 (ESD), IEC
- 61000-4-4 (EFT) and IEC 61000-4-5 (surge) standards
- Fast protection response time (1µs)
- RoHS compliant

Applications

- RS-485 interface surge protection
- AISG (Antenna Interface Standards Group) modem protection





EATON - HS SERIES HYBRID SUPERCAPACITORS



VIEW PRODUCT DETAILS (-

Features and benefits

• 3.8V operating voltage (2.2V minimum

backup power, pulse power and hybrid power systems.

Up 8x energy density of traditional supercapacitors

Operating temperatures:

> HS: 15 to +70°C/+85°C

> HSL: 25 to +60°C

voltage)

• Safe: RoHS compliant, shipping no dangerous goods

 Life: 10 years at +20°C; cycles: 500k (HS), 250k (HSL)

Applications

Eaton hybrid supercapacitors are high reliability, high power, ultra-high capacitance energy storage devices utilising proprietary materials and processes. This combination of advanced technologies allows Eaton to offer a wide variety of capacitor solutions tailored to applications for

- Flash memory, RAID servers
- Smart meters
- Industrial controls
- Medical equipment back up, alarms
- Asset tracking
- Emergency lighting

KEMET - A768 SERIES V-CHIP SOLID POLYMER ALUMINIUM CAPACITORS



VIEW PRODUCT DETAILS

KEMET's surface mount solid polymer aluminium capacitors offer longer life and greater stability across a wide range of temperatures. This highly conductive solid polymer electrolyte eliminates the risk of drying out and, due to its low ESR properties, is able to withstand higher ripple currents during normal operation. This series is ideally suited for automotive and industrial applications. This series is AEC-Q200 qualified for voltages up to 63V and upon request for 80V. An anti-vibration version is available.

Features and benefits

- Surface mount form factor
- Ultra low impedance
- · High ripple current
- High voltage
- High temperature; +125°C/2,000 hours
- High vibration resistance up to 30g
- RoHS compliant
- Halogen-free

Applications

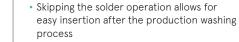
- LED drivers
- Professional power amplifiers
- Industrial power supplies
- DC-DC converters
- Voltage regulators
- Decoupling
- · Automotive power train



KEMET - ALF70/80 SERIES PRESS-FIT ALUMINIUM ELECTROLYTIC CAPACITORS



VIEW PRODUCT DETAILS



Features and benefits

act as heat-sinks

• Capability to exchange components in the field in addition to solving the solder issues

• Eliminates the manufacturing problems of

soldering onto thick PCB copper tracks which

· Eliminates fractured solder joints/cold-solder

- 35mm, 40mm, 45, and 50mm diameters with 4 or 5 pin configuration
- Long life, up to 18,000 hours at $+85^{\circ}$ C (VR, IR applied)
- · High ripple current

Applications

Inverters

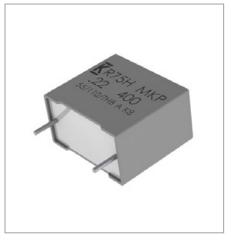
KEMET ALF70/80 press-fit capacitors eliminate the need for solder, and therefore, the associated production and quality issues. They are the next evolution of snap-in capacitors, providing reliable electrical contact and the same vibration performance as soldered snap-in terminals. ALF70/80 high CV press-fit capacitors offer high performance and reliability in a wide range of case sizes and voltage ratings (up to 600V), featuring high ripple currents and long-life performance. Volumetric

efficiency ensures the maximum capacitance capability in a smaller size.

- Frequency converters
- Motor drives
- Motor control
- UPS systems
- Smoothing
- Energy storage
- Alternative energy
- Charging stations
- Traction
- Demanding Power Supplies (SMPS)
- Welding
- HVAC



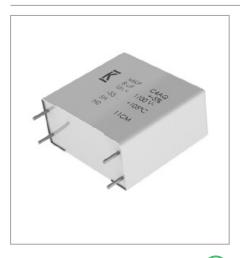
KEMET - C44U-M, C44P-R, AND R75H SERIES FILM CAPACITORS



KEMET has launched three series of metallised polypropylene dielectric film capacitors: C44U-M, C44P-R, and R75H. Constructed with an aluminium canister design, both the C44U-M and C44P-R series address the increasing demand for high-power conversion systems in green energy and industrial applications. These capacitors also support power conversion in energy storage systems, IGBT and Wide Bandgap (WBG) semiconductor devices. The R75H series, a radial box pulse capacitor, is similar in that it supports these applications, but also addresses the automotive sector with its high voltage, AEC-Q200 certified design.



KEMET - C4AQ SERIES LOW PROFILE FILM CAPACITORS



VIEW PRODUCT DETAILS

The C4AQ capacitor is a polypropylene metallised film capacitor with a rectangular, plastic box-type design (white or grey in color) filled with resin, and uses 2 or 4 tinned wires.

These automotive grade devices meet the demanding Automotive Electronics Council's AEC-Q200 qualification requirements.

Features and benefits

- Self-healing
- Low loss
- Low ESL
- Low profile dimensions available
- High ripple current
- · High capacitance density
- · High contact reliability
- Suitable for high frequency applications
- Automotive grade (AEC-Q200)

- Typical applications include DC filtering
- DC link
- Power electronics
- Energy storage
- Renewable energy grid interface
- Motor drives
- Automotive applications



KEMET - FLLE2-P/Q/R/SU SINGLE PHASE EMI FILTERS



KEMET has launched a range of general purpose, single phase filters for medium to very high attenuation. The FLLE2-P, Q, R, S and U models feature a chassis mount for fast mounting, and a metal case filled with self-extinguishing resin. Fast-on or screw terminals are available, as well as options with flexible wire connections. Medical versions are available without Y-capacitors for no leakage current.

VIEW PRODUCT DETAILS

KEMET - KC-LINK™ KONNEKT™ HIGH-DENSITY CAPACITORS



VIEW PRODUCT DETAILS



KEMET has extended its KC-LINK range using KONNEKT high-density packaging technology to meet the growing demand for fast-switching Wide Bandgap (WBG) semiconductors, EV/HEV, LLC resonant converters, and wireless charging applications. This technology combines KC-LINK's robust and proprietary COG Base Metal Electrode (BME) dielectric system with KONNEKT's innovative Transient Liquid Phase Sintering (TLPS) material to create a surface mount multi-chip solution well-suited for both high-density packaging and high-efficiency applications, producing up to four times the capacitance compared to a single multi-layerceramic capacitor.

Features and Benefits

- Extremely high-power density and ripple current capability
- Extremely low equivalent series resistance (ESR)
- Extremely low equivalent series inductance (FSI)
- Low-loss orientation option for higher current handling capability
- Capacitance offering ranging from 44nF to 880nF
- \bullet DC voltage ratings from 500V to 1,700V
- Operating temperature range of -55°C to +150°C
- No capacitance shift with voltage
- · No piezoelectric noise
- High thermal stability
- Surface mountable using standard MLCC reflow profiles

- Wide Bandgap (WBG), Silicon Carbide (SiC) and Gallium Nitride (GaN) systems
- Data centres
- EV/HEV (drive systems, charging)
- LLC resonant converters
- Switched tank converters
- Wireless charging systems
- Photovoltaic systems
- Power convertersInverters
- DC link
- Snubber



KEMET - L-DMI SERIES HIGH CURRENT MULTILAYER CHIP POWER INDUCTORS



VIEW PRODUCT DETAILS

KEMET L-DMI ferrite-based multilayer chip power inductors are ideal for use in DC-DC switching power supplies. The small size of this chip inductor makes it suitable for mobile equipement that requires tight space both in dimension and in height. The internal printed coil structure creates a closed magnetic circuit, which acts as a magnetic shield eliminating crosstalk, thus permitting higher mounting densities. The multilayer block structure yields higher reliability. In addition, the inductor shows excellent low DC power dissipation, due to low Rdc with a high aspect ratio internal conductor that stands on unique green sheet and printing technologies.

Features and benefits

- Unique green sheet and printing technologies
- · High reliability
- High current
- Low DCR
- Inductance value from 0.47µH to 4.7µH
- Rated current range from 0.65A to 1.8A
- Operating temperature range from -40°C to +85°C
- Low profile 1.2mm maximum

Applications

- Switching DC-DC power supplies
- Wearables
- Smartphones
- Tablet devices
- Digital still cameras
- HDDs



KINGSTATE - KDMG5050045Y-02W AND TRFG6666008Y-40W SERIES DYNAMIC SPEAKERS



VIEW PRODUCT DETAILS

Kingstate has launched two dynamic speakers. The KDMG5050045Y-02W is designed with a mylar cone, which is resistant to water, and features a 0.2W, 3V sine wave that will reach 83dB/50cm. The TRFG6666008Y-40W is designed with a paper cone that helps to it to produce frequencies as low as 230Hz, making it suitable for broadcasting human voice.

MURATA - BLF03VK SERIES COMPACT NOISE FILTERS



Murata has released the BLF03VK series of compact (0.6mm \times 0.3mm) noise filters specifically designed for the 5GHz band, one of the frequency ranges used in Wi-Fi (wireless LAN) communications, for the first time in the world.

Features and benefits

- Compact size: 0.6mm x 0.3mm
- Two models with specifications of 220ohm at 5GHz/0.8A rated current and 60ohm at 5GHz/1.2A rated current, respectively

Applications

• Wireless communication devices, such as smartphones, headphones, etc.

VIEW PRODUCT DETAILS

MURATA - DLW32SH101XF2 SERIES WIRE-WOUND COMMON MODE CHOKES



Murata has introduced the DLW32SH101XF2 series wire-wound common mode choke, which is the world's first to support DCMR class 3, fulfilling the IEC62228-3 requirement for use in CAN FD next-generation automotive networks.

Features and benefits

- Supports DCMR class 3; fulfilling the IEC62228-3 requirement for CMCCs used in CAN FD
- The industry's smallest size at 3.2mm x 2.5mm
- AEC-Q200 compliant
- Operating temperature: -40°C to +125°C

Applications

• CAN FD

VIEW PRODUCT DETAILS (-



PANASONIC INDUSTRY - ERJU*RD SERIES THICK FILM CHIP RESISTORS





Panasonic Industry has expanded its robust ERJU resistor series with a low TCR model. Even though applications are getting more digital with every device generation and a lot of functions are defined by the implemented software, nothing in the world would work without precise high-quality passive components like resistors – neither in the automotive, or in the industrial or housing sector.

Features and benefits

- High resistance to sulfurisation achieved by adopting an Ag-Pd-based inner electrode
- High precision: resistance tolerance at $\pm 0.5\%$, TCR: $\pm 50 \times 10^{-}6$ /K
- High reliability: metal glaze thick film resistive element and three layers of electrodes
- Suitable for both reflow and flow soldering
- Reference standard: IEC 60115-8, JIS C 5201-8, JEITA RC-2134C
- · AEC-Q200 compliant
- RoHS compliant

PANASONIC INDUSTRY - ERJUP3 SERIES THICK FILM CHIP RESISTORS



VIEW PRODUCT DETAILS (-

Panasonic Industry has introduced the ERJ-UP3 series of anti-sulfurated anti-surge type chip resistors, anti-surge type in an 0603 inch case size. Extremely durable in challenging or unclean, harsh environments, the ERJ-UP3 series provides anti-sulfurisation characteristics that avoid an open circuit caused by a sulfide disconnection. High resistance to sulfurisation is achieved through the use of an anti-sulfurated electrode structure and material in the manufacture of ERJ-UP3 series resistors.

Features and benefits

- High resistance to sulfurisation achieved by adopting anti-sulfurated electrode material (Ag-Pd-based inner electrode) and structure
- ESD surge characteristics superior to standard metal film resistors
- High reliability: metal glaze thick film resistive element and three layers of electrodes
- Suitable for both reflow and flow soldering
- High power:
- > 0.25W: 0603 inch/1608mm size (ERJUP3)
- > 0.50W: 0805 inch/2012mm size (ERJUP6)
- > 0.66W: 1206 inch/3216mm size (ERJUP8)
- Reference standard: IEC 60115-8, JIS C 5201-8, JEITA RC-2134C
- · AEC-Q200 compliant
- RoHS compliant

PANASONIC INDUSTRY - ETQP5M SERIES POWER CHOKE COIL LINE EXTENSION



VIEW PRODUCT DETAILS

Panasonic Industry has extended its ETQP5M series of high heat resistant, high reliability metal composite core power choke coils.

Features and benefits

- High heat resistance: operation up to +150°C including self-heating
- High-reliability: high vibration resistance as result of newly developed integral construction; under severe reliability conditions of automotive and other strenuous applications
- High bias current: excellent inductance stability using ferrous alloy magnetic material
- Temp. stability: excellent inductance stability over broad temp. range
- Low audible (buzz) noise: a gapless structure achieved with metal composite core
- High efficiency: low DC resistance of winding and low eddy-current loss of the core
- · Shielded construction
- AEC-Q200 compliant
- RoHS compliant

Applications

- Noise filter for various drive circuitry requiring high temp. operation and peak current handling capability
- Boost-converter, buck-converter DC-DC



PANASONIC INDUSTRY - EZPV SERIES DC FILM CAPACITORS



The EZPV series of DC film capacitors from Panasonic Industry Europe benefits from Panasonic's original in-house patterned metallisation process with fuse mechanism function. This unique technology delivers stable capacitance level over the product lifetime and therefore guarantees a higher reliability of the application.

Features and benefits

- High safety (with safety function)
- Long product life, high reliability
- Low loss, low ESR
- Flame retardant (case and sealing resin)
- AEC-Q200 compliant
- RoHS compliant

- For DC filtering, DC link circuits
- Solar inverters
- Wind power generation
- Industrial power supplies
- Inverter circuit in appliances (air conditioners etc.)
- On board chargers, AC-DC, DC-DC converter for automotive





PANASONIC INDUSTRY - FN SERIES COMPACT LOW ESR ALUMINIUM ELECTROLYTIC CAPACITORS



Panasonic Industry Europe has added the FN series of low ESR surface mount aluminium electrolytic capacitors, to its product line-up. Available from a rated voltage of 6.3VDC to 100VDC, the FN series offers wide capacitance values ($10\mu F$ up to $1800\mu F$), which are between 20% and 80% higher than the long-running FK series.

Features and benefits

- Endurance: +105°C 2000h
- Wide voltage range from 6.3V to 100V
- High capacitance : 20% to 80% higher than FK series
- Vibration-proof product (30G guaranteed) is available upon request (ø6.3≤)
- AEC-Q200 compliant
- RoHS compliant



PANASONIC INDUSTRY - GY SERIES SP-CAP CONDUCTIVE POLYMER ALUMINIUM ELECTROLYTIC CAPACITORS



Panasonic Industry Europe has added a long-life surface mount type series to its industry-leading product line of SP-Cap conductive polymer aluminium electrolytic capacitors. Available with a rated voltage of 2VDC or 2.5VDC, GY capacitors benefit from huge capacitance values (680 μ F up to 820 μ F) and a very low ESR characteristics (3mO max.) which is unique in the market. The components are able to withstand +105°C for up to 2,000 hours making them ideal for use in demanding applications. Also with the high ripple current of only 10,200mA r.m.s. max. the GY capacitor series is a perfect component for power circuits in servers, base stations as well as further industrial applications.

Features and benefits

- Super low ESR (3mO max.)
- Large capacitance (820µF max.)
- High ripple current (10,200mA rms max.)
- RoHS compliance, halogen free

VIEW PRODUCT DETAILS



PANASONIC INDUSTRY - ZE SERIES HYBRID CAPACITORS LINE EXTENSION



Panasonic has extended its ZE series of hybrid capacitors for 48V related applications such as cooling fans, oil pumps, water pumps, motors, and DC-DC converters.

Features and benefits

- Endurance: 2000hrs at +145°C (high temperature/long life)
- Low ESR and high ripple current (85% over, lower ESR than current V-TP)
- High-withstand voltage (to 63VDC), low LC (0.01CV or 3μ A)
- Equivalent to conductive polymer type aluminium electrolytic capacitor
- Vibration-proof product is available upon request. (ø8mm and larger)
- · AEC-Q200 compliant
- RoHS compliant





SCHURTER - FMAD CP SERIES COMPACT 3-PHASE FILTER



FMAD CP series is the name of the latest 1-stage filter family for 3-phase systems with a neutral conductor. Thanks to their extremely compact dimensions and high performance, the filters are ideally suited to the tight space conditions in today's machine and equipment construction. An extended temperature range means that they can also be used in critical applications.

Features and benefits

- Rated current: 3A to 20A
- Rated voltage: 300VAC to 520VAC, 50Hz to 60Hz
- Overload current: 1.5xIr for 1 minute, per hour
- Number of filter stages: 1-stage
- Weight: 0.2
- Material housing: metal
- Sealing compound: UL 94V-0

Applications

- For low power 3 phase energy inverters such as photovoltaic or battery storage systems
- Suitable for use in equipment according to IEC/UL 62368-1

VIEW PRODUCT DETAILS



BUY NOW



SCHURTER - UMT-W SERIES SUPER TIME-LAG SMD FUSE



The cuboid shaped (5.3mm x 16mm), extremely compact SMD fuse is available in five rated currents from 5A to 20A and reaches rated voltages of up to 125V AC&DC with a breaking capacity of up to 1000A. Additionally, the series features a super slow and precisely defined melting characteristic unique for SMD fuses.

SCHURTER has launched the UMT-W series pulse-proof SMD ceramic fuse with super timelag tripping characteristics, which is particularly suitable as a fail-safe device in demanding

Features and benefits

applications.

- Rated voltage: 125VAC, 125VDC
- · Rated current: 5A to 20A
- Breaking capacity: up to 1000A
- Characteristic: super-time-lag TT
- Mounting: PCB,SMT
- Admissible ambient air temp.: -55°C to +125°C
- Climatic category: 55/125/21 acc. to IEC 60068-1
- Material: housing ceramics
- Material: terminals Ni/Sn-plated copper alloy
- · Unit weight: 1.42g
- Storage conditions: 0°C to +40°C, max. 70% r.h.

Applications

- Avionics
- · Wire protection
- Fail-safe applications
- Suitable for motor drive applications with medium to long motor cables



VISHAY - 152 CME AND 192 CTX SERIES HIGH VOLTAGE ALUMINIUM CAPACITORS



Vishay has introduced two series of automotive grade, surface-mount aluminium electrolytic capacitors that combine high voltages up to 450V with operating temperatures up to +125 $^{\circ}$ C and useful life up to 6,000 hours for automotive and industrial applications.

Features and benefits

- High voltages up to 450V
- Operating temperatures up to +125°C
- Useful life up to 6,000 hours
- AEC-Q200 qualified
- Capacitance values from 2.2 μF to $33 \mu F$
- Available in seven case sizes ranging from 10mm x 10mm x 10mm to 18mm x 18mm x 21mm
- Charge- and discharge-proof performance with no peak current limitation
- Allow for lead (Pb)-free reflow soldering in accordance with JEDEC J-STD020
- Vibration-proof performance in 4- and 6-pin versions
- RoHS-compliant capacitors



VIEW PRODUCT DETAILS (-

VISHAY - 257 PRM-SI SERIES SNAP-IN POWER ALUMINIUM CAPACITORS



VIEW PRODUCT DETAILS

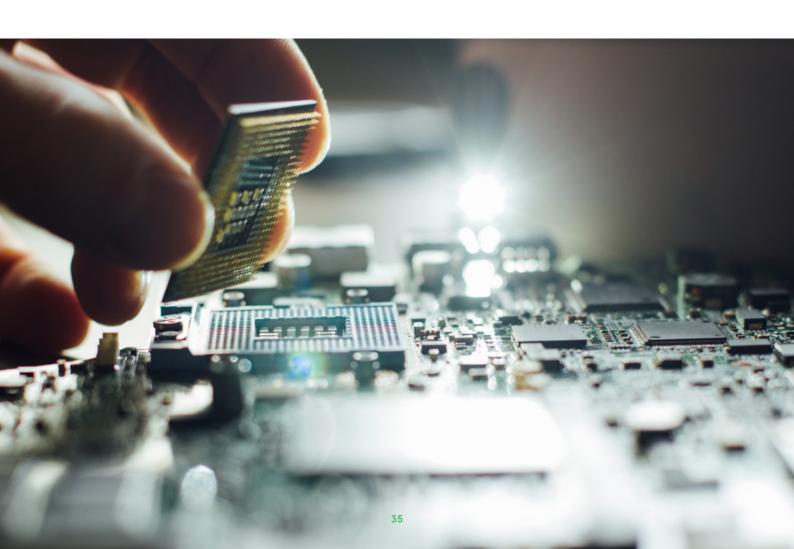
Vishay has introduced a series of miniature snap-in power aluminium electrolytic capacitors that enables higher power density designs. The 257 PRM-SI series offers up to 20% higher ripple current than previous-generation solutions in case sizes that are up to 20% smaller, while providing longer useful life to 5,000 hours at +85°C.

Features and benefits

- Ripple currents up to 5.05A
- Available in 25 compact case sizes ranging from 22mm x 25mm to 35mm x 60mm
- Long useful life to 5,000 hours at +85°C
- Cylindrical aluminium case, insulated with a blue sleeve
- Rated voltage up to 500V
- RoHS-compliant
- Available with 3-pin keyed polarity snap-in terminals

- Smoothing, buffering, and DC-link filtering in switch mode power supplies used in medical, consumer welding, and test and measurement equipment
- General industrial control and audio/video system applications





BEL POWER SOLUTIONS - MELCHER™ RCM60 SERIES CHASSIS MOUNT 60W DC-DC CONVERTERS



VIEW PRODUCT DETAILS

Bel Power Solutions has announced the RCM60 chassis mount DC-DC converters, which are designed for railway applications where compactness and high reliability are required. These RCM series products are fully isolated and highly efficient over a broad operating range of input and output voltages. In addition, their compact size and ease of installation make them uniquely suited for various rolling stock applications, such as cab radios, HVAC systems, train control, passenger information systems, toilet systems, door control, illumination and many others.

Features and benefits

- Ultra-wide input voltage range
- Single output voltage
- Overtemperature, overvoltage, overcurrent and short-circuit protection
- 20ms interruption time (EN50155 class S3)
- · Low inrush current
- Primary shutdown input
- Conformal coated PCB
- Extremely high efficiency and high power density
- Extremely wide ambient temperature range -40°C to +70°C

- Dimensions 50mm x 32mm x 172mm (1.97 x 1.26 x 6.77 in)
- Compliant to EN50155, EN50121-3-2, EN61373 and AREMA
- Fire and smoke inspected according EN45545-2 and NFPA 130
- RoHS Compliant

BEL POWER SOLUTIONS - TET1500 SERIES AC-DC FRONT END POWER SUPPLIES



VIEW PRODUCT DETAILS



The TET1500 series is a 1500W AC to DC Power-Factor-Corrected (PFC) power supply that converts standard AC or HVDC power into a main output of 12VDC for powering Intermediate Bus Architectures (IBA) in high performance and reliability servers, routers, and network switches.

Features and benefits

- High efficiency, typ. 96% efficiency at half load
- Universal input voltage range: 90VAC to 305VAC
- High voltage DC input: 180VDC to 400VDC
- AC input with power factor correction
- Always-on standby output:
- > Programmable 3.3V/5V (16.5W)
- Hot-plug capable
- Parallel operation with active analog current sharing
- Digital controls for improved performance
- High density design: 35W/in3
- Small form factor (W x H x L):
- > 54.5mm x 40mm x 321.5mm
- > 2.14 x 1.57 x 12.66 in

- High performance servers
- Routers
- Switches

Power

DELTA - ADT-090A24AA SERIES 90W COMPACT AC-DC ITE ADAPTER



The Delta ADT-090A24AA is the newest model in the ADT series and features up to 30% reduction in size. With an efficiency up to 91.5%, the ADT-090A24AA meets efficiency DoE level VI and noload power consumption <0.15W at 115VAC and 230VAC input. The product offers a single output voltage of 24VDC with 90W output power and is suitable for general applications such as POS equipment and office equipment.

Features and benefits

- Meet efficiency DoE level VI
- Compact size design
- No load power consumption < 0.15W
- · Universal AC input/full range
- Fully enclosed plastic case
- Protection: short circuit/over voltage/ overload/over temperature



DELTA - PMC-24V600W1RW SERIES 24V 600W POWER SUPPLY



VIEW PRODUCT DETAILS (

Delta's 24V 600W power supply is now 20% smaller. As part of the PMC series of panel mount power supplies, the PMC-24V600W1RW/1SW provides a 24V output voltage with high efficiency >92% at 230VAC. Leakage current has been reduced to less than 0.75mA, whilst maintaining power factor levels up to 0.99. The product has a wide operating temperature of -20°C to +70°C and power de-rating from +50°C. Additional features include remote sense and remote ON/OFF, built-in fan speed control with fan lock protection and conformal coating on the PCBAs to provide protection against dust and chemical pollutants.

Features and benefits

- · Universal AC input range
- Power factor up to 0.99 with active PFC
- Surge immunity IEC 61000-4-5, level 4 (CM: 4kV, DM: 2kV)
- Wide operating temperature range -20°C to +70°C
- Built-in fan speed control and fan lock protection
- Conformal coating on PCBA to protect against chemical and dust pollutants
- Constant current circuit for reactive loads
- Design compliance with Japan PSE (DENAN)

MEAN WELL - RSD-500 SERIES DC-DC CONVERTER



VIEW PRODUCT DETAILS

The RSD-500 series is a 500W enclosed type high reliability DC-DC converter for railway applications. This series is compliant with EN50155/EN45545-2 railway standards and is available in three models with wide input ranges of 16.8V to 33.6V/33.6V to 67.2V/67.2V to 154V. In addition to railway applications, the series is suitable for a range of transportation systems that run on standard input voltages.

Features and benefits

- Low-profile enclosed type design, 1U height (41mm)
- Fanless semi-potted design, improves antivibration and moisture/dust proof capabilities
- 2:1 wide input range
- -40°C to +80°C ultra-wide operating temperature range
- 4000VDC IP-OP reinforced isolation
- Output voltage adjustable (+15%) via built-in SVR
- Protections: short circuit/overload/over voltage/input reverse polarity/input under voltage
- · LED power indicator
- Operating altitude up to 5000m

Applications

- Bus, tram, metro or railway systems
- Industrial control systems
- Semi-conductor fabrication equipment
- Factory automation
- Electromechanical systems
- Wireless networks
- Telecom or datacom systems
- Harsh environments where high temperature, vibration or dust are likely



MEAN WELL - RSDW40/60 AND RDDW40/60 SERIES DC-DC CONVERTER



VIEW PRODUCT DETAILS

The RSDW40/60 and RDDW40/60 series are designed according to universally adopted size and pin-out standards for 2"x 1" converters. Key product features include: low-profile design (10.5mm height), 4:1 wide input voltage range, wide operating temperature range (-40°C to +85°C), and silicone gel potting that helps dissipate heat, prolong product lifetime, and improve anti-vibration, dust proof, and moisture proof capabilities. Additionally, these converters are certified to the EN55032, EAC TP TC004, and the EN50155 railway safety standard, which allow the RSDW40/60 and RDDW40/60 to perform exceedingly well as reliable secondary isolation, DC UPS, or battery voltage regulators for applications such as railway, trams, buses, industrial automation, telecom, etc.

Features and benefits

- 4:1 wide input range
- Internal gel potting for improved antivibration, dust proof, and moisture proof capabilities
- -40°C to +85°C ultra-wide operating temperature range
- IP-OP isolation: 1.6KVDC/3KVDC (by model)
- Protections: short circuit/overload/over voltage/over temperature/input under voltage
- Remote ON/OFF control
- · Safety approval
- Railway: EN50155/EN50121-3-2
- ITE EN55032, EAC
- Ultra-low-profile, dimensions (LxWxH): 50.8mm x 25.4mm x 10.5mm

Applications

- Bus, tram, metro or railway systems
- Telecom/datacom systems
- Wireless networks
- Industrial control facilities
- Instruments
- Analysers
- Harsh environments where high temperature, vibration or dust are likely



MEAN WELL - SKMW06/DKMW06 SERIES 6W 1 X 1 WIDE INPUT RANGE ISOLATED DC-DC CONVERTER



MEAN WELL's SKMW/DKMW series 10W/15W/20W/30W 1"x 1" wide input range DC-DC converters received positive feedback from the market. In order to fulfill lower power requirements for $1"x\ 1"$ converters, MEAN WELL released the 6W single output SKMW06 and dual output DKMW06 series.

Features and benefits

- 1"x 1" packaging industrial standard pin-out
- 4:1 wide input voltage range
- Free air convection, can operate between -40°C to +85°C
- Meeting EN55032 class A EMI performance without external components
- · No minimum load requirement
- Protections: short circuit, overload, over voltage, input under voltage
- Dimensions (LxWxH): 25.4mm x 25.4mm x

Applications

- Telecom datacom systems
- · Wireless networks
- · Industrial control facilities
- Instruments
- Analysers
- Detectors
- Data switches







Approvals: UL/EAC/CE

MURATA POWER SOLUTIONS - IRE-Q12 SERIES 120W ENCAPSULATED 8TH BRICK DC-DC CONVERTERS



VIEW PRODUCT DETAILS

Features and benefits · High efficiency synchronous forward topology

• 9V to 36V DC wide input range

OFF control is also available.

- 5V/12V/24V, up to 120W total output power
- Standard and flanged baseplate options
- Industry standard 1/8 brick format and pinout
- Extensive self-protection features, including over-temperature shutdown
- · Small footprint DC-DC converter, ideal for high current applications
- Meets AREMA® for 2828VDC isolation
- Temperature range -40°C to +85°C
- UL/EN 60950-1 safety approvals
- 2000VAC I/O isolation, basic insulation
- UL 60950-1, 2nd edition
- CAN/CSA C22.2 NO.60950-1
- EN 60950-1
- · RoHS compliant

Applications

Railway

The IRE-Q12 series of isolated DC-DC converters feature a single 120W isolated output, from an input voltage range of 9V to 36V DC in a fully enclosed industry standard eighth-brick package and footprint. Two base plate options are available, one for minimal board space consumption, the other flanged and slotted for mechanical fixing to a heatsink surface. Positive or negative logic ON/

- Transportation
- Industrial



Power

MURATA POWER SOLUTIONS - PQU650 SERIES 650W AC-DC "U" CHANNEL POWER SUPPLY



VIEW PRODUCT DETAILS

PQU650 series products are rated at 650W employing a "U" channel construction to operate with natural convection or forced airflow cooling. The PQU650 series is a 6"x 4" format capable of providing a continuous 650W output, with a constant current overload characteristic, and 800W "power boost" at output start to deliver transient loads.

Features and benefits

- Compact high-density design and thermal performance operation to:
- > 450W convection at +50°C; no derating with input line voltage
- > 650W with forced airflow at +50°C; no derating with input line voltage
- > 800W "power boost" (at output start-up)
- Voltage (+15%) 2 adjustment of main V1
- +5VAux/standby and 12V fan outputs
- 4" x 6" industry standard footprint; "U" channel form factor with industry "standard" mounting footprints.

- > 40mm maximum overall "U" channel height
- > 42.7mm max overall height with cover
- > Choice of screwed or pluggable connector variants.
- High efficiency of 95% typical at 50% load





RF & wireless

MOLEX - 2.4GHZ, 5 GHZ WI-FI/BLUETOOTH EXTERNAL ANTENNAS (212860, 214415, 214428, 214386, 214394 SERIES)



VIEW PRODUCT DETAILS

Molex has introduced 212860, 214415, 214428, 214386, 214394 series 2.4GHz, 5GHz Wi-Fi/Bluetooth external antennas. Off-the-shelf 2.4GHz, 5GHz Wi-Fi/Bluetooth external antennas, available in various configurations, offer high RF performance and reliability for wireless and networking applications.

Features and benefits

- Single- and dual-band connectors in straight and folded modes with I-PEX, SMA-J, RP-SMA-J and N-type mounting options
- Multi-protocol solution that supports Wi-Fi, 2.4GHz, 5.8GHz and Bluetooth technologies
- I-PEX type connector
- Hinge joint allows 90° rotation on the vertical plane and SMA-J connector allows 180° rotation on the horizontal plane
- · IP65-rated design
- 3M adhesive for "peel and stick" mounting
- Two SMA straight cable plugs (male)
- Multiple Input Multiple Output (MIMO) design
- PC-122U covering
- Up to 6.0dBi peak gain with more than 80% efficiency
- IP67-rated design
- Seal plug
- N-J Connector

Applications

- · Connected home
- IoT
- · Telecommunications/networking
- Commercial vehicles



MOLEX - GNSS EXTERNAL ANTENNA (213499 SERIES)



Molex has introduced the 213499 series GNSS external antenna. Off-the-shelf external GNSS antenna providing full-band position coverage and offering high RF performance and reliability for wireless and networking applications.

Features and benefits

- Full band GNSS antenna
- Less than 2 VSWR with low noise figure and high gain
- Strong plastic housing with IPX7 rating

Applications

- Automotive
- Commercial vehicles
- Industrial
- IoT

VIEW PRODUCT DETAILS



RF & wireless

MOLEX - LTE/GPS 2-IN-1 EXTERNAL ANTENNAS (21350 SERIES)



VIEW PRODUCT DETAILS

Molex has introduced 21350 series LTE/GPS 2-in-1 external antennas. Off-the-shelf LTE/GPS 2-in-1 external antennas are a combination of high-performance GPS and a cellular antenna, designed for reliable asset tracking and remote monitoring applications.

Features and benefits

- Integrated LTE and GPS antennas in one housing
- Less than 2 VSWR with low noise figure and high gain
- Multi-protocol solution that supports 2G/3G/4G and GPS technologies

Applications

- Connected home
- > Security and surveillance
- > Home automation
- > Home streaming
- > Entertainment
- > Smart appliances
- > Energy and utilities
- IoT
- > Infrastructure solutions
- Telecommunications/networking
- > Infrastructure/networking
- Commercial vehicles
- > Networking
- > Roadside traffic infrastructure



MOLEX - LTE/5G CELLULAR EXTERNAL ANTENNAS (213523, 214429 SERIES)

applications.



VIEW PRODUCT DETAILS



 Multi-protocol solution that supports GSM, CDMA, UMTS, LTE, 5G NR and other cellular bands

- Hinge joint allows 90° rotation on the vertical plane and SMA-J connector allows 180° rotation on the horizontal plane
- High efficiency and peak gain for all major cellular bands

Applications

- Connected home
- IoT

Molex has introduced 213523, 214429 series LTE/5G cellular external antennas. Off-the-shelf LTE/5G antennas, designed for 2G/3G/4G/5G modules and devices, offer superior coverage and reliability with high efficiency and peak gain, making them ideal for various wireless and networking

• Telecommunications/networking

BUY NOW

RF & wireless

MOLEX - ISM DEDICATED SHORT-RANGE COMMUNICATIONS (ISM/DSRC) EXTERNAL ANTENNAS (214414, 214048 SERIES)



VIEW PRODUCT DETAILS

Molex has introduced 214414, 214048 series dedicated short-range communications external antennas. Off-the-shelf 5.9GHz ISM/DSRC external antennas, available in various configurations, offer high RF performance and reliability for wireless and networking applications.

Features and benefits

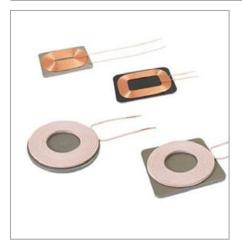
- Single-band connectors in straight and folded modes with SMA-J and RP-SMA-J mounting options offers design flexibility
- Supports ISM/DSRC 5.9GHz technologies makes it suitable for diverse applications
- Ultra-high gain performance offers design

Applications

- Connected home
- Internet of Things
- Data centre solutions
- Telecommunications/networking
- · Commercial vehicles



VISHAY - IWAS AND IWTX SERIES WIRELESS CHARGING COILS



VIEW PRODUCT DETAILS (

Vishay has introduced powdered iron based, WPC-compliant (Wireless Power Consortium) wireless charging coils that offer direct replacements for devices for which End-of-Life (EOL) was announced in 2017. The coils provide high efficiency in a variety of industry-standards.

Features and benefits

Receiver coils:

- Inductance of 10.8µH to 22µH at 200kHz
- ±5% inductance tolerance
- Typical Q from 29 to 65 at 200kHz
- DCR from 175m Ω to 427m Ω (±5%) at +25°C

Transmitter coils:

- Inductance of 6.3µH to 24µH at 200kHz
- ±5% inductance tolerance
- DCR from $40m\Omega$ to $75m\Omega$ (± 5%) at +25°C
- Typical Q from 185 to 200 at 200kHz
- · Heat rated current of 6A and 7A
- · Saturation current of 20A and 22A



KEMET - FG-R05-3A SERIES RESIDUAL CURRENT SENSOR



The FG-R05-3A is a high-sensitivity DC-AC current sensor that can detect leakage current of DC and AC. If a DC fault occurs, PIN 4 will change state from low level to high impedance. If an AC fault occurs, PIN 5 will change state form low level to high impedance. This sensor has a test coil for testing the operation of the sensor, and by inputting a signal from the outside it is possible to pass a test current to the test coil. It also outputs a digital signal informing that leakage current of DC-AC has been detected.

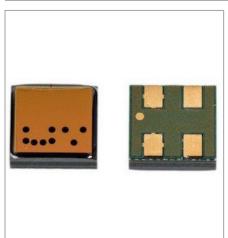
Features and benefits

- For IC-CPD to the standard IEC 62752:2016
- UL2231 (CCID20)
- · Open-loop, flux-gate type current sensor
- PCB mounting
- · Digital output of fault detection





KEMET - PL SERIES PYROELECTRIC INFRARED SENSORS



VIEW PRODUCT DETAILS (

KEMET's PL series pyroelectric infrared sensors use the pyroelectric effect of ceramic by absorbing infrared rays emitted from the human body. This detects the natural infrared signature produced by humans. Also, it can detect infrared rays without using lenses.

Features and benefits

- Reflow capable SMD configuration
- · Lens not required
- A lens can be attached to the sensor
- Wide view angle up to ±60 degrees (lensless)
- View angle up to ±37/±28 degrees (with lens)
- Detection possible through glass or resin
- Low power consumption, down in the μA
- Excellent radio wave performance in highfrequency bands
- Compact and low profile (5mm x 4.8mm x

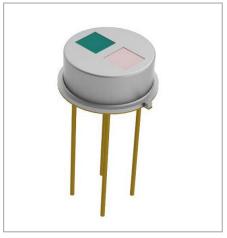
Applications

Typical applications include human presence detection sensing for energy saving functions

- · Contactless switching
- Office automation equipment
- Home appliances
- Lighting
- Display products
- · Air-conditioners
- TV
- PC monitors
- · Rice cookers
- Smart toilets



KEMET - QDC PYROELECTRIC INFRARED FOOD SENSORS



KEMET's QDC thin film pyroelectric food sensors can be reduced in physical size and still provide high sensitivity with fast frequency operation, enabling this highly stable 2 element sensor in a TO39 package. The sensor element is built into a low noise circuit that has an internal CMOS operational amplifier with a 10GO feedback resistor outputting a voltage signal centered around half the supply rail.

Features and benefits

- Fast, stable response over a wide operating frequency range
- · 2 sensor elements in one package
- TO39 package
- Analog output
- Integrated operational amplifier

Applications

- Food (nutritional value, adulteration, decay)
- Breath (medical, automotive, consumer)

VIEW PRODUCT DETAILS



KEMET - QGC ANALOG PYROELECTRIC INFRARED GAS SENSORS



VIEW PRODUCT DETAILS

KEMET's QGC thin film pyroelectric gas sensors can be reduced in physical size and still provide high sensitivity with fast frequency operation, enabling this highly stable 1 to 4 element sensor in a TO39 package. The sensor element is built into a low noise circuit that has an internal CMOS operational amplifier with a 10GO feedback resistor outputting a voltage signal centred around half the supply rail.

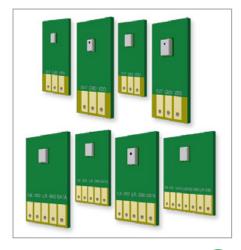
Features and benefits

- Fast, stable response over a wide operating frequency range
- 1, 2, or 4 sensor elements in one package
- TO39 package
- Analog output
- Integrated op amp

Applications

- Gas and gas flues
- HVAC (refrigerant or CO₂-driven ventilation system)
- Industrial process and safety
- Medical capnography and anesthesia
- Handheld breath analysis and breath rate measurement
- Breath actuated dispenser
- · Automotive cabin air quality
- Exhaust (CO₂ content)
- Home and building technology
- Environmental monitoring (ambient CO₂ level)
- Pollution air quality in home, office and car (excessive CO₂ level)

PUI AUDIO - MEMS MICROPHONE EVALUATION BOARDS



PUI Audio offers evaluation boards loaded with its wide-band MEMS microphones to make it quick and easy to test these microphones. With individualised boards for each of its MEMS microphones, they make it simple to evaluate multiple microphone options without the need to spin multiple boards.

To recap PUI's MEMS microphone offering, these are premium, high-fidelity MEMS microphones that cover the entire audio band from 20Hz up to 18kHz - and up to 20kHz on some models while featuring industry-best unit-to-unit consistency ±1dB across the entire frequency response.



TE CONNECTIVITY - M3200 COMPACT INDUSTRIAL PRESSURE TRANSDUCER



VIEW PRODUCT DETAILS



The M3200 is constructed of robust stainless-steel and is available in both amplified analog as well as digital output which is ideal for IIoT applications. Built on Microfused technology, the M3200 offers compact size, excellent price-to-performance and design flexibility for low to high volume OEM applications.

Features and benefits

- Enable flexible design configurations supporting both amplified analog as well as digital output formats
- Offer a compact size with excellent vibration and shock resistance as well as EMC compliance and is suitable for harsh
- Provide robust one-piece 17-4 stainless-steel construction that provides compatibility with many different media
- · Allow multiple configurations with a variety of process fittings and electrical connections
- Fits into both low and high-volume OEM applications with an excellent price-toperformance ratio

Applications

- Air compressors
- Pumps and pressurised systems
- HVAC/R
- Hydraulic and pneumatic systems
- · Automotive test systems
- Energy and water management
- · Medical gas pressure
- · Aircraft service equipment
- Remote measuring systems
- · General pressure measurements
- Injection molding machines

Sensors

TDK - EPCOS B58703M1103AX SERIES TEMPERATURE SENSORS FROM TDK



TDK has introduced the B58703M1103A* temperature sensor which is specially developed for demanding E-mobility applications, which call for high long-term stability. The NTC sensor is designed for a temperature range of -40°C to +150°C, whereby a temporary load of up to +200°C is permitted. At +25°C the rated resistance is $10k\Omega$ with a B25/100 value of 3625K and a tolerance of +1%.

Features and benefits

- Temperature range from -40°C to +150°C
- High electrical strength of 2.5kV DC according to LV 123 H3 class
- Twisted cables for good EMC performance

Applications

 Temperature monitoring of busbars, battery modules and connector systems in E-mobility applications







Connectors

	Automotive	Lighting	Backplane, DIN 41612, 2mm and high speed	Board-to-board	Heavy duty	Industrial	Medical	Military and aerospace	Audio, signal and mobile	DSUB and accessories	DVI, HDMI and SCSI	Modular jacks, plugs and SDL	High speed: USB, firewire, infiniband and IEC	Multimedia and PC cards	Smart card and SIM	IEC connectors and entry modules	IEC distribution units	Heavy duty	Military and aerospace	DIL and SIL	PLCC, PGA and BGA	SIMM and DIMM	Battery and fuse	FFC and FPC	IDC 2.54, 2.00 and 1.27	Headers, receptacles and others	Terminal blocks	Wire-to-wire	RF inc. coax. and antennas	Fibre optics	Cable: FFC, ribbon flat and round	Cable assemblies	Terminal faston	Accessories, pins and contacts
	Application	specific		Board-to-board			Circular				2				Memory card		Power		Kectangular		1	sockets			Wire-to-board		Terminal blocks	Wire-to-wire	High speed/	high frequency		1	Otners	
3M																																		
Alps Alpine																																		
Amphenol			•	•			•			•	•				•								•	•	•		•	•		•	•	•		
Aptiv																																		
AVX (Ethertronics)																																		
Bourns																																		
Bulgin					•	•			•			•				•	•						•											
Bel (Cinch)																																		
Bel (Stewart)				•				•																						•		•		
CviLux		•											•								•			•	•	•		•	•			•		
Deltron Components									•							•	•														•	•		
Dubilier		•	•						•		•		•		•						•		•	•	•	•	•	•	•					
Eaton																											•							•
Glenair					•	•		•		•																			•	•		•		
Greenconn	•			•						•			•											•								•		•
Harwin				•				•												•	•				•	•		•				•		•
Hirose	•	•		•		•	•	•	•			•	•	•	•									•	•	•		•	•	•	•			
ITT	•		•			•	•	•	•	•				•				•	•							•			•			•		•
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Pulse												٠																	•					
Samtec			•	•		•			•				•							•	•			•	•	•		•	•	•	•	•		•
Schaffner																٠	٠																	
Schurter									•							•	•						•									•		
Switchcraft					٠	٠		٠		٠		٠	٠			٠	٠												٠			٠		
TE Connectivity	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Weidmüller																											•			•				

Electromechanical

	DIP	Push	Rocker, toggle and slide	Rotary	Tactile	Snap-action and detector	Multi control	Stainless steel, security and rugged	Keypads, keyboards and touch panel	Keylock	Reed	Circuit breakers	Signal	Automotive	Power	PhotoMOS	Solid state	Contactor	Chassis	IEC inlet and output	AC, DC fans and blowers	Heatsinks	Thermal interface materials	Encoders	Potentiometers	Thermal printers	Enclosures, PCB hardware and accessories	Motors and actuators	Solenoids
						Switches									Relays				- TA CM	EMC Iliters		Thermal management	D			77	Otner		
3M																													
Aavid																													
						•																Ė	Ė						
Alps Alpine	•	•	•	•	•	•	•																	•	•	•		•	
Arcoelectric		•	•			•		•																					
Bourns		•		•	•																			•	•				
Bulgin		•						•												•							•		
C&K Components	•	•	•	•	•	•	•	•		•	•													•					
CTS	•			٠	•																	•		•	•				
Deltron Enclosures																											•		
Diptronics ebm Papst	•		•	•	•	•	•														•			•				•	
Eledis	•	•	•	•	•	•	•	•	•	•	•													•	•				
Fujitsu													•	•	•		•												
Grayhill	•	•	•	•	•	•	•	•	•	•														•			•		
Harwin																											•		
ITW Switches	•	•				•																							
knitter-switch						•	•	•		•																			
Laird																													
Molex									•																				
Nidec Copal																													
nVentSchroff																						•					•		
Omron																													
Panasonic Industry						•	•																						
Panasonic Electric Works																													
Roxburgh EMC																			•										
Schaffner																			•										
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Passive

	Ceramic single layer	Ceramic leaded	Ceramic MLCC	Ceramic safety	Ceramic trimmer	Al. electrolytic leaded	Al. electrolytic SMD	Al. electrolytic snap-in and large can	Electric Double Layer (EDLC)	Tantalum leaded and low ESR	Tantalum SMD and low ESR	Polymer: tant., aluminium and hybrid	Film leaded	Film SMD	Film suppression	Fuses and fuseholders	Resettable devices	NTC and PTC thermistors	Varistors	Coils, inductors, chokes and transformers	Soft ferrite	MELF	Leaded	Networks and arrays	Precision pots	SMD	Trimmer pots	Wire wound	Filters and antennas	Frequency control: crystals, oscillators and resonators	Electromagnetic: piezo buzzers, sounders, transducers and microphones	Active components
								Capacitors									Circuit	protection		Magnetics	and inductors				Resistors						Other	
Abracon																																
AEM																•			•	•												
AVX (Ethertronics)	•	•	•	•					•	•	•	•	•	•		•		•	•	•									•	•	•	•
Bel Fuse																٠	٠			•	٠											
Bourns																•	•	•	•	•	•			•	•	•	•	•				•
CTS																								•	•				•	•		
Cyntec Datatronic																				•												
Dubilier																				•	•								•			
Eaton								•											_													
ECS																				•												
Fagor																																
Fox Electronics																																
Harvatek																																
KEMET (Yageo)		•	•			•								•	•					•	•								•			
Kingbright																																
Kingstate																															•	
Laird																				•	•											
Micro Crystal																														•		•
Murata	•	٠	٠	٠	•				٠			٠					٠	•		•	•						•		•	•	•	٠
NIC Nichicon	•	•	•			•	•	•		•		•		•	•	•		•	•	•	•			•		•						•
Nichicon Panasonic Industry						•	•	•	•		٠		•						•													
Premier Magnetics PUI Audio						•	•		•			•	•	•	•			•	•	•				•		•	•		•		•	•
Pulse																															•	
Qinlon																																
Rubycon																															•	
Samsung Electro-Mechanics																				•												
Schaffner																																
Schurter																•													•			
Taiyo Yuden																				•									•			
TDK		•	•	•		•	•	•					•		•			•	•	•	•								•		•	
TE Connectivity																				•	•		•	٠	•	•	•	•				
Vishay	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Vitrohm																						•	•			•		•				
VPG																									•			•				
Yageo			•	•		•	•	•											•	•		•	•	•		•		•	•			

Wireless charging

	RFID	NFC	ANT	Bluetooth	Zigbee	Thread	Wi-Fi	LoRa	SigFox	LTE Cat M1	NB-loT	Optical wireless comms	Tx coil	Rx coil	Tx module	Rx module
						-	Wireless							Wireless	charging	
Abracon													٠	•		
Alps Alpine				•												
Amphenol													•	•		
AVX (Ethertronics)								•								
Fujitsu				•												
Molex													•	•		
Murata	•	•		•			•	•	•	•	•					
Panasonic Industry		•		•	•	•	•									
Pulse													•	•		
Taiyo Yuden		•	•	•	•	•	•					•				
TDK													•	•	•	•
Vishay													•	•		

Antennas

	NFC	ISM, Zigbee and Bluetooth	WLAN and Wi-Fi	NB-IoT, Cat-M1	GSM and LTE	GNSS (GPS, Glonass, BeiDou, Galileo)	DAS
				Antenna			
Abracon	•	•	•	•	•	•	
Amphenol	•	•	•	•	•	•	•
AVX (Ethertronics)	•	•	•	•	•	•	
Molex	•	•	•	•	•	•	
Murata	•						
Pulse	•	•	•	•	•	•	•
Taiyo Yuden		•	•			•	
TDK	•	•					
TE Connectivity	•	•	•	•	•	•	
Vishay		•	•			•	
Yageo	•	•	•		•	•	

Batteries

	Zinc carbon	Alkaline manganese	Silver oxide	Zinc air	Lithium manganese dioxide	Lithium iron disulfide	Lithium thionyl chloride	Lithium poly-carbon monofluoride	Sealed lead acid	Nickel metal hydride	Lithium ion	Lithium polymer	Lithium vanadium pentoxide	All-ceramic multilayer	Chargers and power adapters
				Prin	nary					Re	echar	geab	le		
Artesyn															•
Dubilier					•	•	•			•	•	•			
Enersys									•						
GP Batteries	•		•	•	•	•				•	•				
MEAN WELL															•
Molex	•														
Murata		•	•		•						•				
Nichicon											•				
Panasonic Industry	•	•		•	•			•	•	•	•		•		
Procell (Duracell)		•			•						•				
RRC											•				•
Tadiran							•				•				
TDK														•	
Varta			•		•		•			•	•	•			
Wamtechnik										•	•				

Power

	Enclosed and open frame	Board or chassis mounted	Conduction cooled and fanless	DIN rail	LED drivers and system accessories	Modular	Railway and rugged	Adaptors and chargers	Front end and high power	Miniature, industrial and bricks	Digital brick and PoL	PoL, PIM and power block	Switching regulators	Transportation and railway	DIN rail and chassis mount	LED	Medical	High voltage input	Filter boards	IGBT and MOSFET driver
ABB					AC-DC									U	C-D					
	•		•			•			•	•	•	•	•						•	
Aimtec	•	•		•	•					•			•	•	•	•	•	•		•
Artesyn	•		•	•	•	•		•	•	•	•	•		•	•		•	•		
Bel Power/Melcher	•		•	•		•	•		•	•	•	•		•	•		•		•	
Cyntec												•								
Datel										•		•	•	٠			٠			
Delta	•	•	•	•	•		•	•	•	•	•	•	•	•	•		•	•	•	•
Excelsys	•		•			•			•											
Flex Power										•	•	•		•						
Fulham			•		•											•				
MEAN WELL	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•		•
Murata Power Solutions	•	•	•						•	•	•	•	•	•			•			•
TDK											•	•								

Sensors

									Force, load, torque and tension					
									nd te					
					Thermal reed switch				dne a					
					ed sv	oile	aldr		ı, tor		0,			_
				2	nal re	rmok	וסססר	nre	, loac	dity	O pu			eve.
	NTC	PTC	RTD	Digital IC	hern-	IR thermopile	Thermocouple	Pressure	orce	Humidity	VOC and CO ₂	Dust	Flow	Water level
								ш.						
				ē								pini		
				eratu					e T			nd lic		
				Temperature					rressure			Gas and liquid		
Abracon	•			_					-			0		
Alps Alpine														
Amphenol Advanced Sensors	•	•				•		•		•	•	•		
AVX (Ethertronics)	•													
Bourns								•		•				
Bulgin														
C&K Components														
CTS														
Grayhill														
Harvatek														
Innovative Sensor Technology			•	•						•			•	
KEMET					•									
Kingstate														
Molex (Contrinex)														
Murata	•	•						•			•			
Nidec Copal								٠						
Omron						•		•		•	•	•	•	
Panasonic Electric Works														
Panasonic Industry	•					•		•						
Piher														
PUI Audio														
Pulse														
Qinlon														
SMI (TE Connectivity) TDK								•						
TE Connectivity	•	•						•		•				
Vishay	•		•	•		•		•	•	•	•		•	•
Violity														

Sensors continue...

Sensors

	Accelerometer, vibration and shock	Inclinometer and gyro	Geomagnetic	GMR, AMR and TMR	Inductive and hall transducer	Capacitive touch	Resistive potentiometers	Optical encoder	Magnetic encoder/potentiometer	Photo interruptor	Photoelectric	Ultrasonic	Passive Infrared (PIR)	Light convergent reflective	Magnetic proximity (reed and hall)	Current	Sunlight, ambient light	Pulse oximetry (SpO ₂)	Microphone	Human vision
								Motion								Current	Optical	7 9	DI 1000	Image
Abracon																U	U	C	0	_
Alps Alpine																•				
Amphenol Advanced Sensors																	•			
AVX (Ethertronics)																				
Bourns							•	•	•											
Bulgin											•									
C&K Components								•							•					
CTS																				
Grayhill								•	•											
Harvatek																				
Innovative Sensor Technology																				
Invensense (TDK)																•				
KEMET (Yageo)													•			•				
Kingstate																			•	
Molex (Contrinex)					•						•									
Murata	•	•		•			•					•	•							
Nidec Copal							•	•	•							•				
Omron	•					•				•				•						
Panasonic Electric Works													•							
Panasonic Industry	٠			٠			٠													
Piher							•		•											
PUI Audio												•							•	
Pulse																•				
Qinlon												•								
SMI (TE Connectivity)																				
TE Connectivity	•	•		•	•		•		•			•			•			•		
Vishay							•		•											



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