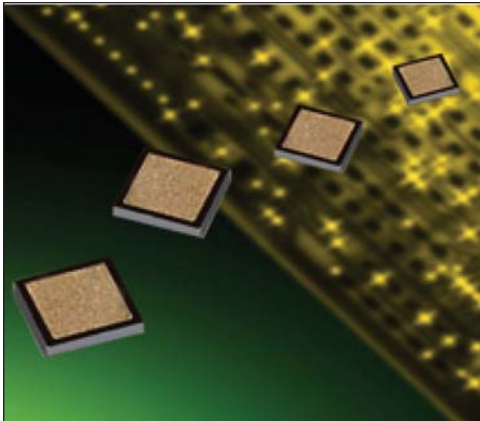


MS Series



MOS (Metal Oxide Semiconductor) Capacitors



For applications in RF, microwave, and GHz ranges, AVX now offers MOS Capacitors. MOS Capacitors are Single Layer Capacitors (SLCs) that use silicon dioxide to produce small, high Q, temperature stable, high breakdown voltage, low leakage capacitors. To ease assembly, AVX offers a wide range of termination styles for epoxy or solder die attach and subsequent Gold or Aluminum wire thermosonic and ultrasonic bonding. Custom applications and designs are welcome. Please contact your local representative.

FEATURES

- Small Size: .010 to .070 inches square
- Capacitance Range: 1.0 to 1000pF
- High Q
- DC to 20GHz operation

APPLICATIONS

- Hybrid circuits
- Bias Networks
- Test and Measurement Equipment
- Aerospace
- TOSA and ROSA applications

HOW TO ORDER

MS	20	3	S	100	M	3893	W
Series Code Metal on Silicon	Case Size Square Size in mils 10, 20, 30, 40, 50, 60, 70 OS = Special Order Please supply design	Working Voltage 2 = 200 WVDC 1 = 100 WVDC 5 = 50 WVDC 3 = 25 WVDC	Dielectric Code S = SiO ₂	Capacitance EIA Cap Code in pF First two digits = significant figures or "R" for decimal place. Third digit = number of zeros or after "R" significant figures.	Capacitance Tolerance B = ± 0.1 pF C = ± 0.25 pF F = 1% G = 2% J = 5%	Termination Code 1st position top layer 2nd position top bonding layer 3rd position bottom bonding layer 4th position bottom layer Top layers: 37 = AuTaN, 38 = AuTiW, 18 = AlTiW, Bottom layers: 23 = CrAu, 93 = TiW/Ni Au, 53 = CrNiAu, OSOS – Special Request please supply design or contact factory	Packaging Code W = wafile pack T = Tested whole wafer D = Tested wafer diced on film frame

SIZE, CAPACITANCE RANGE, WVDC

Capacitance (pF)	Case Size* (mils/mm)	Rating (V)
1-2	10/0.25	200
2-4	10/0.25	100
4-10	10/0.25	50
10-15	20/0.51	100
15-40	20/0.51	50
40-80	20/0.51	25
30-40	30/0.70	100
40-80	30/0.70	50
80-160	30/0.70	25
100-125	40/1.02	100
125-250	40/1.02	50
250-400	40/1.02	25
100-150	50/1.27	100
150-300	50/1.27	50
300-600	50/1.27	25
200-350	60/1.52	100
350-650	60/1.52	50
650-800	60/1.52	25
400-500	70/1.78	100
500-800	70/1.78	50
800-1000	70/1.78	25

*Size tolerance ± 1 mil (0.025 mm)
Thickness range 5 to 10 mils (0.127 to 0.250 mm)

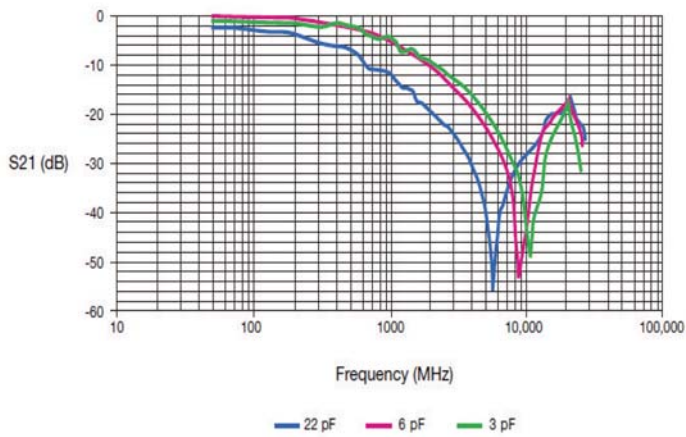


TEST METHODS AVAILABLE

MIL Reference	Parameter	Method or Paragraph
MIL-STD-883	Bond Strength	2011.7
MIL-STD-883	Shear Strength	2019
MIL-STD-202	Thermal Shock	107
MIL-STD-202	Life	108
MIL-STD-202	Load Humidity (THB)	103 @ rated VDC

S21 AND Q VERSUS FREQUENCY

Typical MOS Caps: 50MHz-25GHz
Au/TaN bond pad, Cr/Au back side



22pF Q vs. Frequency

