

Microwave Single Layer X7S Capacitors

Z Dielectric With and Without Borders

NEW



GENERAL INFORMATION

This new SLC series is available with dielectric constants from 2500 to 15000. Developed specifically as a replacement for Z5U and Y5V materials, the "Z" dielectric has an extended operating temperature range and X7S TC. Available in standard L&W sizes from .010" to .100". Special configurations/multi-cap arrays on request.

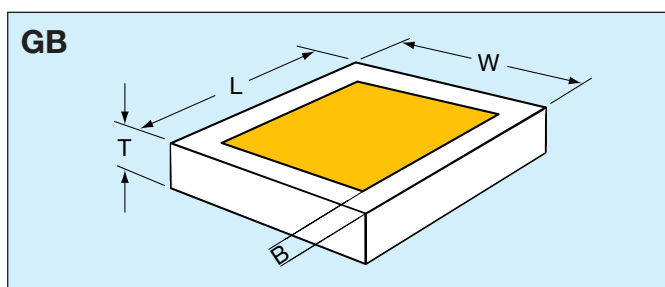
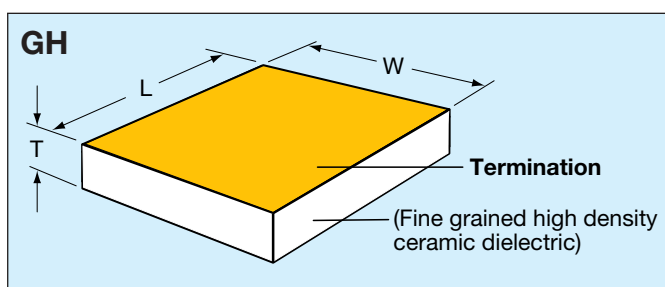
Z DIELECTRIC KEY FEATURES

- Capacitance change $\pm 22\%$ from -55°C to $+125^{\circ}\text{C}$
- Termination: Au (100 μ inches min.) over Ti/W (1000 Å nominal)
- Surface finish especially suited for wirebonding
- Excellent termination adhesion
- Available with and without borders
- Replacement for Y5V and Z5U materials

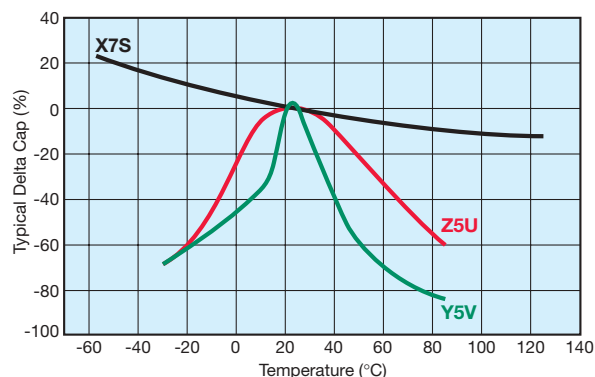
TEST METHODS

Specification	Parameter	Method or Paragraph
MIL-STD-883	Bond Strength	2011.7
MIL-STD-883	Shear Strength	2019
MIL-STD-202	Solderability	208
MIL-STD-202	Thermal Shock	107
MIL-STD-202	Immersion	104
MIL-STD-202	Life	108
MIL-STD-202	Low Volt Humidity	103
MIL-STD-202	Load Humidity (THB)	103 @ rated VDC

Reference Specifications: MIL-C-55681 & MIL-C-49464



CAPACITANCE CHANGE WITH TEMPERATURE



HOW TO ORDER

GH	20	5	Z	101	M	A	6N
Type Code	Case Size	Working Voltage Code	Dielectric Code	Capacitance	Capacitance Tolerance Code	Termination Code	Packaging Code
GH = No Borders GB = With Borders	10 15 20 25 35 50 70 90	5 = 50 WVDC 1 = 100 WVDC	Z = X7S	EIA Cap. Code in pF 1st two digits = significant figures. 3rd digit = number of zeros.	K = $\pm 10\%$ M = $\pm 20\%$ Z = $+80\% -20\%$ P = $+100\% -0\%$	A = 99.99% pure sputtered Au (100 micro-in min.) over Ti/W (1000 Å nominal)	6N = Antistatic Waffle Pack



Other terminations available on request.

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NOMINAL SIZES

Dimensions: inches (millimeters)

AVX Style	GB/GH10	GB/GH15	GB/GH20	GB/GH25	GB/GH35	GB/GH50	GB/GH70	GB/GH90
(L) Length	.010±.003 (.254±.076)	.015±.005 (.381±.127)	.020±.005 (.508±.127)	.025±.005 (.635±.127)	.035±.005 (.889±.127)	.050±.005 (1.27±.127)	.070±.010 (1.78±.254)	.090±.010 (2.29±.254)
(W) Width	.010±.003 (.254±.076)	.015 ^{+.000} _{-.003} (.381 ^{+.000} _{-.076})	.020 ^{+.000} _{-.003} (.508 ^{+.000} _{-.076})	.025 ^{+.000} _{-.003} (.635 ^{+.000} _{-.076})	.035±.005 (.889±.127)	.050±.005 (1.27±.127)	.070±.010 (1.78±.254)	.090±.010 (2.29±.254)
(T) Thickness	.007 ^{+.002} _{-.001} (.178 ^{+.051} _{-.025})	.007 ^{+.002} _{-.001} (.178 ^{+.051} _{-.025})	.007 ^{+.002} _{-.001} (.178 ^{+.051} _{-.025})	.007 ^{+.002} _{-.001} (.178 ^{+.051} _{-.025})	.007 ^{+.002} _{-.001} (.178 ^{+.051} _{-.025})	.007 ^{+.002} _{-.001} (.178 ^{+.051} _{-.025})	.007 ^{+.002} _{-.001} (.178 ^{+.051} _{-.025})	.007 ^{+.002} _{-.001} (.178 ^{+.051} _{-.025})
(B) Border	.002±.001 (.051±.025)	.002±.001 (.051±.025)	.002±.001 (.051±.025)	.002±.001 (.051±.025)	.002±.001 (.051±.025)	.002±.001 (.051±.025)	.002±.001 (.051±.025)	.002±.001 (.051±.025)

GH SERIES: SINGLE LAYER X7S CAPACITORS WITHOUT BORDERS CAPACITANCE RANGE BY CASE SIZE

Cap. (pF)	GH10	GH15	GH20	GH25	GH35	GH50	GH70	GH90
5.1								
12								
22								
39								
75								
100								
180								
270								
390								
560								
1000								
1800								
3900								
5600								

GB SERIES: SINGLE LAYER X7S CAPACITORS WITH BORDERS CAPACITANCE RANGE BY CASE SIZE

Cap. (pF)	GB10	GB15	GB20	GB25	GB35	GB50	GB70	GB90
4								
7.5								
20								
33								
68								
120								
250								
330								
470								
820								
1500								
3300								
5600								

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