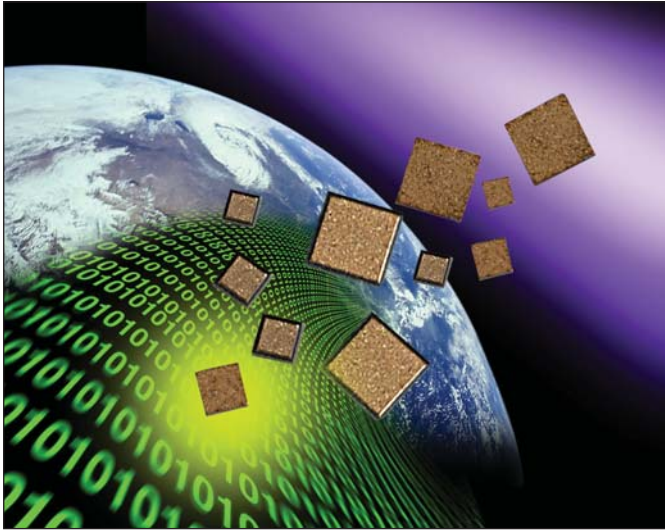


# Microwave Single Layer X7S Capacitors

## Z Dielectric With and Without Borders

**NEW**



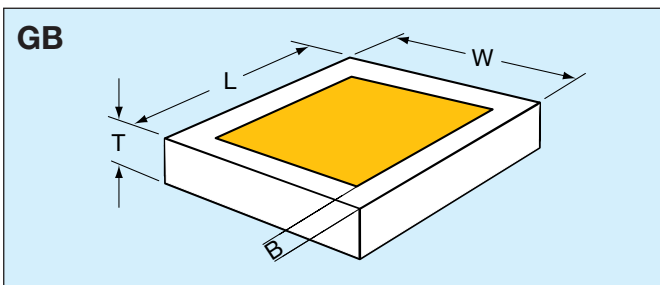
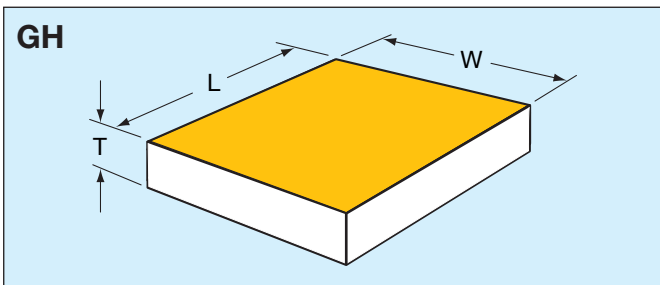
### GENERAL INFORMATION

This new SLC family is a higher Q, low loss grain boundary barrier layer (GBBL) system developed specifically as a replacement for certain Class III materials.

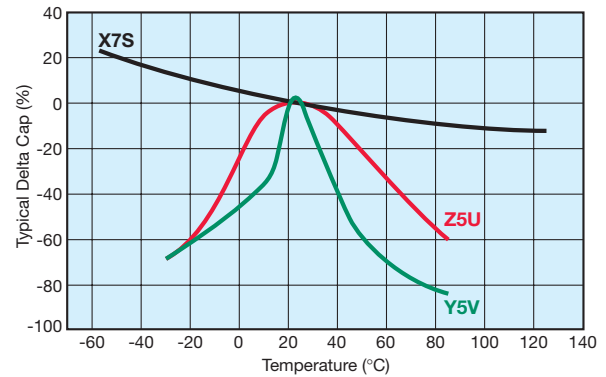
With X7S temperature coefficient ( $\pm 22\%$ ), the "Z" Series not only offers a significant improvement over the unexceptional TC performance of Z5U and Y5V dielectrics, but does so over a much wider operating temperature range from  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ . TC is very predictable and, as shown on the graph below, is only slightly concave between the temperature extremes.

Sputtered terminations provide excellent adhesion and surface characteristics of this dielectric system are ideal for wire bonding.

The Z Series is offered in a range of five dielectric constants (2,500, 5,000, 9,000, 14,000 and 18,000) and is available with and without borders.



### CAPACITANCE CHANGE WITH TEMPERATURE



### HOW TO ORDER

GH	20	5	Z	102	M	A	6N
<b>Type Code</b>	<b>Case Size</b>	<b>Working Voltage Code</b>	<b>Dielectric Code</b>	<b>Capacitance</b>	<b>Capacitance Tolerance Code</b>	<b>Termination Code</b>	<b>Packaging Code</b>
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	K = $\pm 10\%$ M = $\pm 20\%$ Z = $+80\% -20\%$ P = $+100\% -0\%$	A = Au (100 $\mu\text{-in min}$ ) over Ti/W (1000 $\text{\AA}$ nom) also available N = Ti/W-Ni-Au	6N = Antistatic Waffle Pack



# Microwave X7S SLC's



## Microwave Single Layer X7S Capacitors With & Without Borders Dielectric Code Z

DIMENSIONS: inches (millimeters)

	GH/GB10	GH/GB15	GH/GB20	GH/GB25	GH/GB35	GH/GB50	GH/GB70	GH/GB90
<b>(L) Length</b>	.010±.003 (.254±.076)	.015±.005 (.381±.127)	.020±.005 (.508±.127)	.025±.005 (.635±.127)	.035±.005 (.889±.127)	.050±.010 (1.27±.254)	.070±.010 (1.78±.254)	.090±.010 (2.29±.254)
<b>(W) Width</b>	.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±.010 (1.27±.254)	.070±.010 (1.78±.254)	.090±.010 (2.29±.254)
<b>(T) Thickness</b>	.007+.002,-.001 (.178+.051,-.025)							
<b>(B) Border</b>	.002±.001 (.051±.025)							

### GH SERIES: SINGLE LAYER X7S CAPACITORS WITHOUT BORDERS

Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)	
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
8	90	11	170	23	290	39	440	90	970	130	2200	270	3400	470	5400

### GB SERIES: SINGLE LAYER X7S CAPACITORS WITH BORDERS

Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)		Cap (pF)	
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
6	70	9	120	20	250	33	380	80	870	120	2000	250	3200	450	5100

Sample kits are available

[Catalog # KITSCLCZDIESAMPL](#) includes 10 each: GH105Z500MA6N, GH155Z101MA6N, GH205Z221MA6N, GH255Z331MA6N, GH355Z471MA6N, GH505Z102MA6N