

# Microwave SLCs

## GH/GB Series – SLC's With & Without Borders

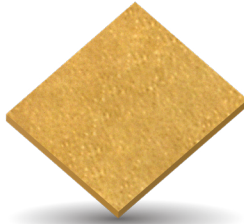
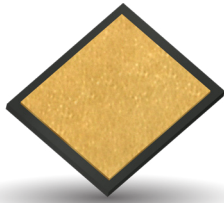
### X7S Dielectrics – Code Z



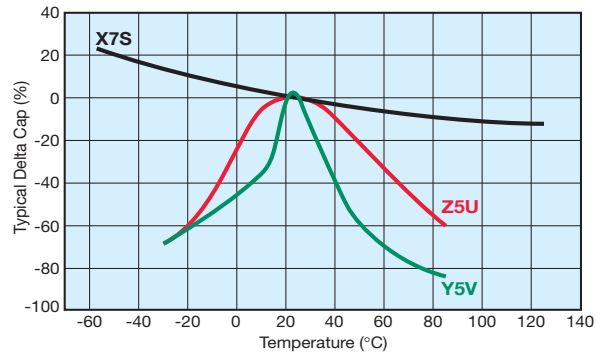
### GENERAL INFORMATION

This grain boundary barrier layer (GBBL) system was developed as a replacement for conventional Z5U/Y5V dielectrics. With X7S temperature characteristics, the Z Series offers not only a significant improvement over the TCC of these two dielectrics, but does so over a much wider operating range of -55C to +125°C. Voltage ratings of 50 and 100VDC are available.

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



### CAPACITANCE CHANGE WITH TEMPERATURE



Sample kits are available

[Z Dielectric KIT Catalog # KITS LCZDI ESAMPL](#)

includes 10 each:

GH015Z101MA6N, GH025Z221MA6N,

GH035Z471MA6N, GH045Z102MA6N

Samples of individual P/N's are also available

DIMENSIONS: inches (millimeters)

|               | GH/GB01                             | GH/GB02                  | GH/GB03                  | GH/GB04                  | GH/GB05                  | GH/GB06                  |
|---------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| (L) Length    | .015±.005<br>(.381±.127)            | .025±.005<br>(.635±.127) | .035±.005<br>(.889±.127) | .050±.010<br>(1.27±.254) | .070±.010<br>(1.78±.254) | .090±.010<br>(2.29±.254) |
| (T) Thickness | .007+.002, -.001 (.178+.051, -.025) |                          |                          |                          |                          |                          |
| (B) Border    | .002±.001 (.051±.025)               |                          |                          |                          |                          |                          |

### Z DIELECTRIC GH WITHOUT BORDERS

| Cap (pF) |     | Cap (pF) |     | Cap (pF) |     | Cap (pF) |      | Cap (pF) |      | Cap (pF) |      |
|----------|-----|----------|-----|----------|-----|----------|------|----------|------|----------|------|
| Min      | Max | Min      | Max | Min      | Max | Min      | Max  | Min      | Max  | Min      | Max  |
| 20       | 200 | 35       | 470 | 80       | 800 | 150      | 2000 | 300      | 3000 | 500      | 4700 |

### Z DIELECTRIC GB WITH BORDERS

| Cap (pF) |     | Cap (pF) |     | Cap (pF) |     | Cap (pF) |      | Cap (pF) |      | Cap (pF) |      |
|----------|-----|----------|-----|----------|-----|----------|------|----------|------|----------|------|
| Min      | Max | Min      | Max | Min      | Max | Min      | Max  | Min      | Max  | Min      | Max  |
| 20       | 150 | 30       | 390 | 70       | 700 | 140      | 1800 | 280      | 2700 | 470      | 4500 |

### HOW TO ORDER

|                                     |                                  |                      |                           |                                |  |   |                                |  |
|-------------------------------------|----------------------------------|----------------------|---------------------------|--------------------------------|--|---|--------------------------------|--|
| <b>GH</b>                           | <b>02</b>                        | <b>5</b>             | <b>Z</b>                  | <b>102</b>                     | <b>M</b>                                 | <b>A</b>  | <b>6N</b>                      |  |
| Type Code                           | Case Size                        | Working Voltage Code | Dielectric Code           | Capacitance EIA Cap Code in pF | Capacitance Tolerance Code               | Termination Code  | Packaging Code                 |  |
| GH = w/o borders<br>GB = w/ borders | 01<br>02<br>03<br>04<br>05<br>06 | 5 = 50V<br>1 = 100V  | Z = X7S<br>(k = 2.5K-18K) |                                | K = ±10%<br>M = ±20%<br>Z = +80%<br>-20% | A = Au<br>(100 μ-in min)<br>over<br>Ti/W (1000 Å nom)<br>also available<br>N = Ti/W-Ni-Au | 6N = Antistatic<br>Waffle Pack |  |

Note: GH/GB01 & 02 above replace GH/GB10, 15, 20 & 25 and are slightly different dimensionally. Contact factory for details.  
GH/GB03, 04, 05 & 06 replace GH/GB35, 50, 70 & 90 respectively and are dimensionally identical.