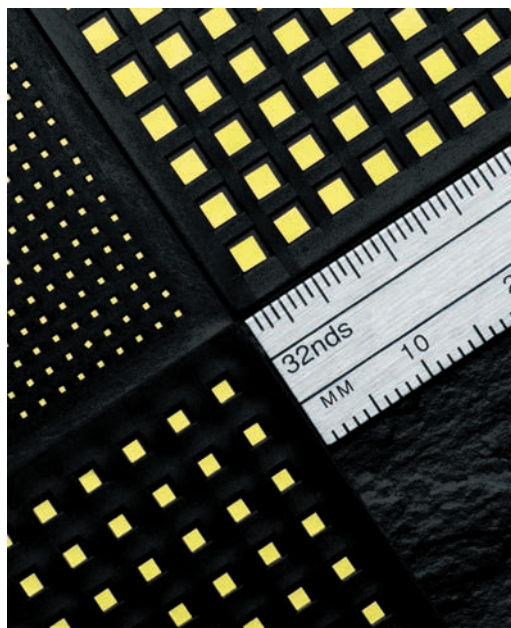


# SLC MICROWAVE / MILLIMETERWAVE CAPACITORS



## KEY FEATURES

- Ceramic SLC Low Profile Devices Exhibit Very High-Q / Low Insertion Loss, SRFs to 50 GHz
- Thin Film Gold Electrodes Provide Superior Wire Bonding & Die Attach Performance
- Four SLC Device Types to Fit Many Applications:
 

|                     |                     |
|---------------------|---------------------|
| Standard (Die) SLCs | Border SLCs         |
| Bar SLC Arrays      | Custom SLC Products |
- RoHS - Available on all dielectrics
- Custom sizes are available - please consult factory

## APPLICATIONS

- Microwave Integrated Components
- GaAs Integrated Circuits
- RF/Microwave Components
- DC Block, Bypass, Tuning

## DIELECTRIC CHARACTERISTICS

| DIELECTRIC CODE | CONSTANT (K) | TEMPERATURE COEFFICIENT * | TEMPERATURE RANGE | DISSIPATION FACTOR | INSULATION RESISTANCE | TEST COND. | AVAILABLE TOLERANCES                |
|-----------------|--------------|---------------------------|-------------------|--------------------|-----------------------|------------|-------------------------------------|
| C               | 23           | 0 ± 30 ppm                | -55°C to +125°C   | ≤ 0.15%            | > 1000 GΩ             | 1          | B,C,D ( A, <2pF)                    |
| K               | 37           | 0 ± 30 ppm                | -55°C to +125°C   | ≤ 0.15%            | > 1000 GΩ             | 1          | B,C,D ( A, <2pF)                    |
| N               | 80           | 0 ± 30 ppm                | -55°C to +125°C   | ≤ 0.15%            | > 1000 GΩ             | 1          | B,C,D ( A, <2pF)<br>(F - K, >10 pF) |
| U               | 120          | -750 + 100ppm / -308ppm   | -55°C to +125°C   | ≤ 0.25%            | > 1000 GΩ             | 1          | J,K (B-D)                           |
| V               | 160          | -1500 + 500ppm / -946ppm  | -55°C to +125°C   | ≤ 0.25%            | > 1000 GΩ             | 1          | J,K (B-D)                           |
| R               | 280          | -2200 + 500ppm / -1086ppm | -55°C to +125°C   | ≤ 0.25%            | > 1000 GΩ             | 1          | J,K (B-D)                           |
| L               | 350          | -3300 + 500ppm / -1306ppm | -55°C to +125°C   | ≤ 1.50%            | > 1000 GΩ             | 1          | J,K,M (B-D)                         |
| D               | 600          | ± 10%                     | -55°C to +125°C   | ≤ 2.50%            | > 100 GΩ              | 2          | K,M                                 |
| B               | 1200         | ± 10%                     | -55°C to +125°C   | ≤ 2.50%            | > 100 GΩ              | 2          | K,M                                 |
| W               | 2000         | ± 15%                     | -55°C to +125°C   | ≤ 2.50%            | > 100 GΩ              | 2          | K,M                                 |
| X               | 2700         | ± 15%                     | -55°C to +125°C   | ≤ 2.50%            | > 100 GΩ              | 2          | K,M                                 |
| T               | 4000         | ± 15%                     | -55°C to +125°C   | ≤ 2.50%            | > 100 GΩ              | 2          | K,M                                 |
| Z               | 8000         | +22% -56%                 | +10°C to +85°C    | ≤ 4.00%            | > 10 GΩ               | 2          | M,Z                                 |
| Y               | 12000        | +22% -82%                 | -30°C to +85°C    | ≤ 4.00%            | > 10 GΩ               | 2          | M,Z                                 |

\* Temperature Coefficient tolerances are per MIL-PRF-49464A

VOLTAGE RATINGS:

50 & 100 WVDC

DIELECTRIC STRENGTH:

2.5 x WVDC min, 25°C, 50 mA max

TEST CONDITIONS:

1) 1.0±0.2 VRMS @1MHz, 25°C

2) for values ≤100pF: 1.0±0.2 VRMS @1MHz, 25°C; for ALL other values: 1.0±0.2 VRMS @1KHZ, 25°C



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## V-SERIES & B-SERIES BORDER SLC CAPACITORS

Recessed SLC electrode borders help prevent shorting from conductive epoxy squeeze-up and aid visual recognition equipment. The V-Series SLCs feature dual borders (top & bottom) while the B-Series SLCs feature a single border (top-only).

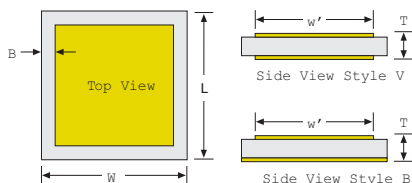
## V-SERIES & B-SERIES CAPACITANCE SELECTION

| CAP. CODE | VALUE  | V10 100V | V12 100V | V15 100V | V20 100V | V25 100V | V30 100V | V40 100V | V50 100V |
|-----------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0R1       | 0.1 pF | C        | C        | C        |          |          |          |          |          |
| 0R2       | 0.2 pF | N        | K        | C        | C        |          |          |          |          |
| 0R3       | 0.3 pF | N        | N        | K        | C        | C        |          |          |          |
| 0R4       | 0.4 pF | V        | N        | N        | K        | C        |          |          |          |
| 0R5       | 0.5 pF | V        | N        | N        | K        | C        | C        |          |          |
| 0R6       | 0.6 pF | V        | V        | N        | K        | K        | C        |          |          |
| 0R7       | 0.7 pF | V        | V        | V        | N        | K        | C        |          |          |
| 0R8       | 0.8 pF | R        | V        | V        | N        | K        | C        |          |          |
| 0R9       | 0.9 pF | R        | V        | V        | N        | K        | C        | C        |          |
| 1R0       | 1.0 pF | R        | V        | V        | N        | K        | K        | C        |          |
| 1R1       | 1.1 pF | R        | R        | V        | N        | N        | K        | C        |          |
| 1R2       | 1.2 pF | L        | R        | V        | N        | N        | K        | C        |          |
| 1R3       | 1.3 pF | L        | R        | R        | N        | N        | K        | C        |          |
| 1R4       | 1.4 pF | L        | R        | R        | N        | N        | K        | C        | C        |
| 1R5       | 1.5 pF | L        | R        | R        | V        | N        | K        | C        | C        |
| 1R6       | 1.6 pF | D        | R        | R        | V        | N        | K        | K        | C        |
| 1R7       | 1.7 pF | D        | R        | R        | V        | N        | K        | K        | C        |
| 1R8       | 1.8 pF | D        | L        | R        | V        | N        | K        | K        | C        |
| 1R9       | 1.9 pF | D        | L        | L        | V        | N        | N        | K        | C        |
| 2R0       | 2.0 pF | D        | L        | L        | V        | N        | N        | K        | C        |
| 2R1       | 2.1 pF | D        | L        | L        | V        | N        | N        | K        | C        |
| 2R2       | 2.2 pF | D        | L        | L        | V        | V        | N        | K        | C        |
| 2R4       | 2.4 pF | D        | L        | L        | V        | V        | N        | K        | K        |
| 2R7       | 2.7 pF | D        | D        | L        | V        | V        | N        | K        | K        |
| 3R0       | 3.0 pF | B        | D        | D        | L        | V        | N        | K        | K        |
| 3R3       | 3.3 pF | B        | D        | D        | L        | V        | N        | N        | K        |
| 3R6       | 3.6 pF | B        | D        | D        | L        | V        | N        | N        | K        |
| 3R9       | 3.9 pF | B        | D        | D        | L        | V        | V        | N        | K        |
| 4R3       | 4.3 pF | B        | D        | D        | L        | R        | V        | N        | K        |
| 4R7       | 4.7 pF | B        | B        | D        | L        | R        | V        | N        | K        |
| 5R1       | 5.1 pF | B        | B        | D        | L        | R        | V        | N        | K        |
| 5R6       | 5.6 pF | B        | B        | B        | L        | R        | V        | N        | N        |
| 6R2       | 6.2 pF | W        | B        | B        | D        | R        | V        | V        | N        |
| 6R8       | 6.8 pF | W        | B        | B        | D        | R        | V        | V        | N        |

| CAP. CODE | VALUE   | V10 100V | V12 100V | V15 100V | V20 100V | V25 100V | V30 100V | V40 100V | V50 100V |
|-----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| 6R8       | 6.8 pF  | W        | B        | B        | D        | R        | V        | V        | N        |
| 7R5       | 7.5 pF  | W        | B        | B        | D        | L        | R        | V        | N        |
| 8R2       | 8.2 pF  | W        | W        | B        | D        | L        | R        | V        | N        |
| 9R1       | 9.1 pF  | W        | W        | B        | D        | D        | R        | V        | N        |
| 100       | 10 pF   | X        | W        | W        | D        | D        | L        | V        | V        |
| 120       | 12 pF   | X        | W        | W        | B        | D        | L        | R        | V        |
| 150       | 15 pF   | T        | X        | W        | B        | D        | L        | R        | V        |
| 180       | 18 pF   | T        | X        | X        | B        | D        | D        | R        | R        |
| 200       | 20 pF   | T        | T        | X        | B        | B        | D        | L        | R        |
| 220       | 22 pF   | Z        | T        | X        | B        | B        | D        | L        | R        |
| 270       | 27 pF   | Z        | T        | T        | W        | B        | D        | D        | L        |
| 330       | 33 pF   | Y        | Z        | T        | W        | B        | B        | D        | L        |
| 390       | 39 pF   | Y        | Z        | Z        | X        | W        | B        | D        | L        |
| 470       | 47 pF   | Y        | Z        | Z        | X        | W        | B        | D        | D        |
| 500       | 50 pF   | Y        | Y        | Z        | X        | W        | B        | D        | D        |
| 510       | 51 pF   | Y        | Y        | Z        | T        | X        | B        | D        | D        |
| 560       | 56 pF   | Y        | Y        | Z        | T        | X        | B        | B        | D        |
| 680       | 68 pF   |          | Y        | Y        | T        | X        | W        | B        | D        |
| 820       | 82 pF   |          | Y        | Y        | Z        | T        | W        | B        | D        |
| 101       | 100 pF  |          |          | Y        | Z        | T        | X        | W        | B        |
| 121       | 120 pF  |          |          | Z        | T        | X        | X        | W        | B        |
| 151       | 150 pF  |          |          |          | Y        | Z        | T        | X        | W        |
| 181       | 180 pF  |          |          |          | Y        | Z        | T        | T        | W        |
| 201       | 200 pF  |          |          |          | Y        | Z        | T        | T        | X        |
| 221       | 220 pF  |          |          |          | Y        | Y        | Z        | T        | X        |
| 271       | 270 pF  |          |          |          |          | Y        | Z        | T        | X        |
| 331       | 330 pF  |          |          |          |          | Y        | Y        | Z        | T        |
| 391       | 390 pF  |          |          |          |          |          | Y        | Z        | T        |
| 471       | 470 pF  |          |          |          |          |          | Y        | Z        | T        |
| 561       | 560 pF  |          |          |          |          |          | Y        | Y        | Z        |
| 681       | 680 pF  |          |          |          |          |          |          | Y        | Z        |
| 821       | 820 pF  |          |          |          |          |          |          |          | Y        |
| 102       | 1000 pF |          |          |          |          |          |          |          | Y        |
| 122       | 1200 pF |          |          |          |          |          |          |          | Y        |

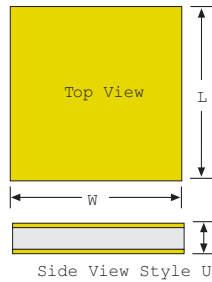
Color breaks used to highlight changes in dielectric material, letters indicate the specific material.

## V-SERIES & B-SERIES MECHANICAL CHARACTERISTICS



| SIZE                                                                                               | V10                                        | V12               | V15             | V20             | V25             | V30             | V40             | V50             |
|----------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| W&L ±.001"<br>(mm)                                                                                 | .010<br>(0.25)                             | .012<br>(0.30)    | .015<br>(0.38)  | .020<br>(0.51)  | .025<br>(0.64)  | .030<br>(0.76)  | .040<br>(1.02)  | .050<br>(1.27)  |
| w' NOM.<br>(mm)                                                                                    | .007<br>(0.17)                             | .008<br>(0.20)    | .011<br>(0.28)  | .016<br>(0.41)  | .020<br>(0.51)  | .026<br>(0.66)  | .036<br>(0.91)  | .044<br>(1.12)  |
| B ±.001"<br>(mm)                                                                                   | .001*<br>(0.025)*                          | .001*<br>(0.025)* | .002<br>(0.051) | .002<br>(0.051) | .002<br>(0.051) | .002<br>(0.051) | .002<br>(0.051) | .003<br>(0.076) |
| T ±.002"<br>(mm)                                                                                   | NOM. 0.004" ~ 0.008"<br>(NOM. 0.10 ~ 0.20) |                   |                 |                 |                 |                 |                 |                 |
| *Min Border 0.0005"                      Contact factory for other sizes, values or configurations |                                            |                   |                 |                 |                 |                 |                 |                 |

## U-SERIES STANDARD SINGLE LAYER CAPACITORS



| Size                                                      |        | U10                  | U12    | U15    | U20    | U25    | U30    | U35    | U50    | U70    |
|-----------------------------------------------------------|--------|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| W                                                         | +.001" | .010                 | .012   | .015   | .020   | .025   | .030   | .035   | .050   | .070   |
| (mm)                                                      | -.003" | (0.25)               | (0.30) | (0.38) | (0.51) | (0.64) | (0.76) | (0.89) | (1.27) | (1.78) |
| L                                                         | MAX.   | .012                 | .015   | .020   | .025   | .030   | .035   | .040   | .060   | .080   |
|                                                           | (mm)   | (0.30)               | (0.38) | (0.51) | (0.64) | (0.76) | (0.89) | (1.02) | (1.52) | (2.03) |
| T                                                         | ±.002" | NOM. 0.004" ~ 0.008" |        |        |        |        |        |        |        |        |
|                                                           | (mm)   | (NOM. 0.10 ~ 0.20)   |        |        |        |        |        |        |        |        |
| Contact factory for other sizes, values or configurations |        |                      |        |        |        |        |        |        |        |        |

| CAPACITANCE |        | U10 | U12 | U15 |      | U20 |      | U25 |      | U30 |      | U35 |      | U50  | U70  |
|-------------|--------|-----|-----|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|
| CODE        | VALUE  | 50V | 50V | 50V | 100V | 50V | 100V | 50V | 100V | 50V | 100V | 50V | 100V | 100V | 100V |
| 0R1         | 0.1 pF | C   |     |     |      |     |      |     |      |     |      |     |      |      |      |
| 0R2         | 0.2 pF | K   | C   |     | C    |     |      |     |      |     |      |     |      |      |      |
| 0R3         | 0.3 pF | N   | K   | C   | K    |     | C    |     |      |     |      |     |      |      |      |
| 0R4         | 0.4 pF | N   | N   | K   | K    | C   | C    |     | C    |     |      |     |      |      |      |
| 0R5         | 0.5 pF | U   | N   | K   | N    | C   | K    |     | C    |     |      |     |      |      |      |
| 0R6         | 0.6 pF | V   | N   | K   | N    | C   | K    | C   | C    |     |      |     | C    |      |      |
| 0R7         | 0.7 pF | V   | N   | N   | N    | K   | K    | C   | K    |     | C    |     | C    |      |      |
| 0R8         | 0.8 pF | V   | U   | N   | N    | K   | N    | C   | K    |     | C    |     | C    |      |      |
| 0R9         | 0.9 pF | R   | V   | N   | U    | K   | N    | C   | K    | C   | C    |     | C    |      |      |
| 1R0         | 1.0 pF | R   | V   | N   | U    | K   | N    | K   | K    | C   | K    |     | C    | C    |      |
| 1R1         | 1.1 pF | R   | V   | N   | V    | K   | N    | K   | K    | C   | K    | C   | C    | C    |      |
| 1R2         | 1.2 pF | R   | V   | N   | V    | N   | N    | K   | N    | C   | K    | C   | C    | C    |      |
| 1R3         | 1.3 pF | R   | V   | N   | V    | N   | N    | K   | N    | C   | K    | C   | K    | C    |      |
| 1R4         | 1.4 pF | L   | V   | U   | V    | N   | N    | K   | N    | K   | K    | C   | K    | C    |      |
| 1R5         | 1.5 pF | L   | V   | U   | V    | N   | N    | K   | N    | K   | K    | C   | K    | C    |      |
| 1R6         | 1.6 pF | L   | R   | U   | V    | N   | U    | K   | N    | K   | N    | C   | K    | C    |      |
| 1R7         | 1.7 pF | L   | R   | U   | V    | N   | U    | K   | N    | K   | N    | C   | K    | C    |      |
| 1R8         | 1.8 pF | L   | R   | U   | R    | N   | U    | N   | N    | K   | N    | K   | K    | C    |      |
| 1R9         | 1.9 pF | L   | R   | V   | R    | N   | U    | N   | N    | K   | N    | K   | K    | C    |      |
| 2R0         | 2.0 pF | D   | R   | V   | R    | N   | U    | N   | N    | K   | N    | K   | K    | K    |      |
| 2R1         | 2.1 pF | D   | L   | V   | R    | N   | V    | N   | N    | K   | N    | K   | K    | K    | C    |
| 2R2         | 2.2 pF | D   | L   | V   | R    | U   | V    | N   | U    | K   | N    | K   | N    | K    | C    |
| 2R4         | 2.4 pF | D   | L   | V   | R    | U   | V    | N   | U    | K   | N    | K   | N    | K    | C    |
| 2R7         | 2.7 pF | D   | L   | R   | L    | U   | V    | N   | U    | N   | N    | K   | N    | K    | C    |
| 3R0         | 3.0 pF | D   | L   | R   | L    | U   | V    | N   | U    | N   | N    | K   | N    | K    | C    |
| 3R3         | 3.3 pF | D   | L   | R   | L    | V   | R    | N   | V    | N   | U    | K   | N    | K    | C    |
| 3R6         | 3.6 pF | D   | D   | R   | L    | V   | R    | U   | V    | N   | U    | K   | N    | K    | C    |
| 3R9         | 3.9 pF | B   | D   | R   | L    | V   | R    | U   | V    | N   | U    | N   | N    | N    | C    |
| 4R3         | 4.3 pF | B   | D   | R   | D    | V   | R    | U   | V    | N   | V    | N   | N    | N    | C    |
| 4R7         | 4.7 pF | B   | D   | L   | D    | R   | R    | U   | R    | N   | V    | N   | N    | N    | K    |
| 5R1         | 5.1 pF | B   | D   | L   | D    | R   | R    | V   | R    | U   | V    | N   | U    | N    | K    |
| 5R6         | 5.6 pF | B   | D   | L   | D    | R   | L    | V   | R    | U   | V    | N   | U    | N    | K    |
| 6R2         | 6.2 pF | B   | D   | D   | D    | R   | L    | V   | R    | U   | V    | N   | V    | N    | K    |
| 6R8         | 6.8 pF | B   | B   | D   | D    | R   | L    | R   | R    | V   | R    | N   | V    | N    | K    |
| 7R5         | 7.5 pF | W   | B   | D   | D    | R   | D    | R   | L    | V   | R    | U   | V    | N    | K    |
| 8R2         | 8.2 pF | W   | B   | D   | B    | L   | D    | R   | L    | V   | R    | U   | V    | N    | N    |
| 9R1         | 9.1 pF | W   | B   | D   | B    | L   | D    | R   | L    | V   | R    | U   | R    | N    | N    |
| 100         | 10 pF  | X   | B   | D   | B    | L   | D    | R   | L    | R   | L    | V   | R    | V    | N    |

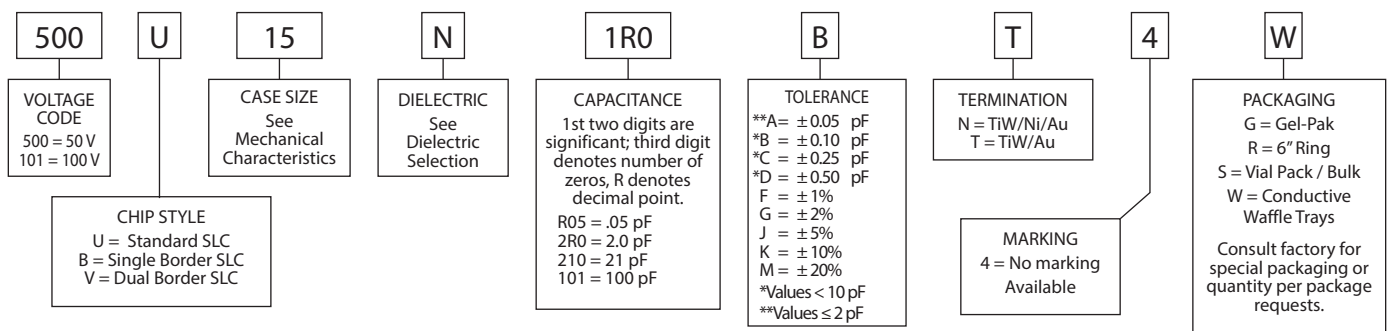
Color breaks used to highlight changes in dielectric material, letters indicate the specific material



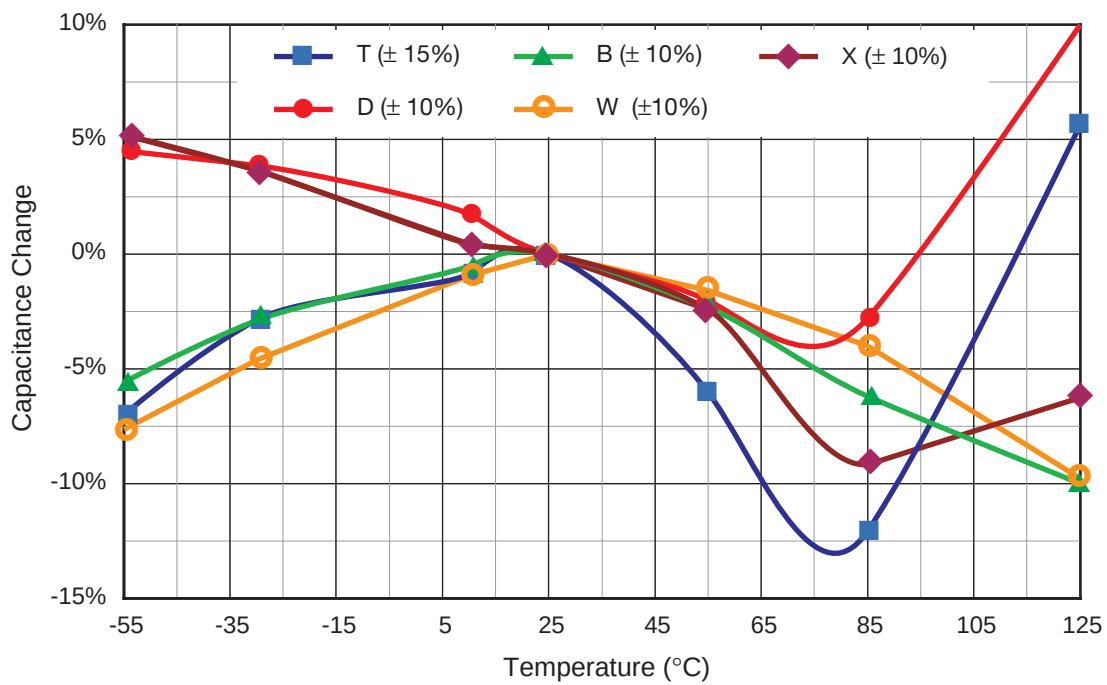
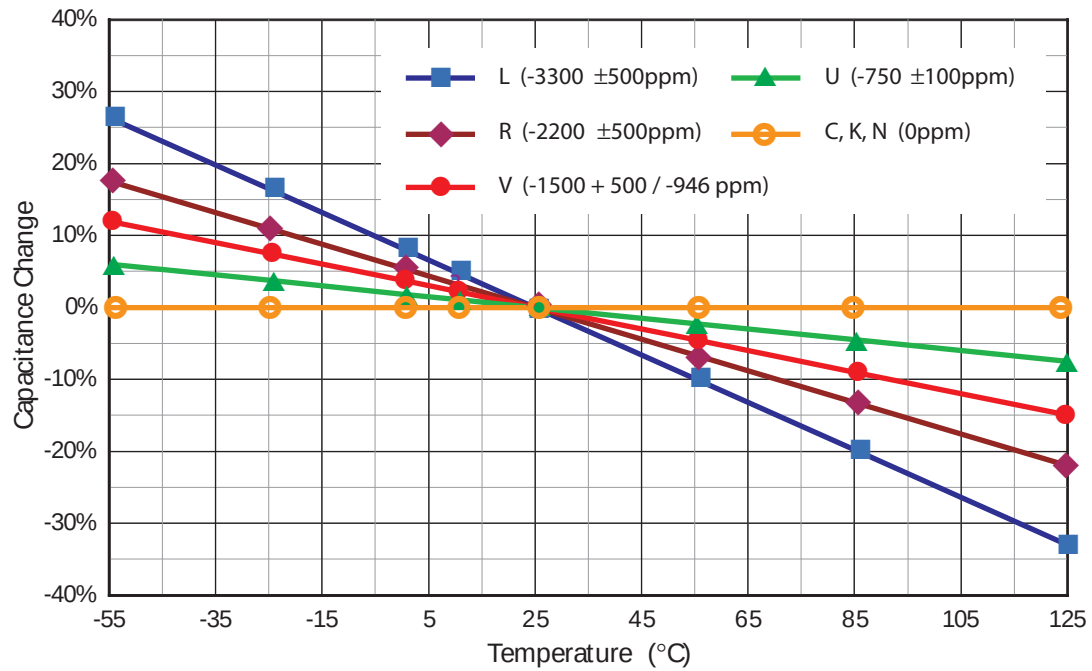
## U SERIES SLC CAPACITANCE SELECTION (CONT.)

| CAPACITANCE |         | U10 | U12 | U15 |      | U20 |      | U25 |      | U30 |      | U35 |      | U50  | U70  |
|-------------|---------|-----|-----|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|
| CODE        | VALUE   | 50V | 50V | 50V | 100V | 50V | 100V | 50V | 100V | 50V | 100V | 50V | 100V | 100V | 100V |
| 100         | 10 pF   | X   | B   | D   | B    | L   | D    | R   | L    | R   | L    | V   | R    | V    | N    |
| 120         | 12 pF   | X   | W   | B   | B    | D   | D    | L   | D    | R   | L    | V   | R    | V    | N    |
| 150         | 15 pF   | T   | W   | B   | W    | D   | B    | L   | D    | R   | L    | R   | L    | V    | N    |
| 180         | 18 pF   | T   | W   | B   | W    | D   | B    | D   | D    | L   | D    | R   | L    | V    | V    |
| 200         | 20 pF   | T   | X   | W   | W    | D   | B    | D   | D    | L   | D    | R   | D    | R    | V    |
| 220         | 22 pF   | T   | X   | W   | X    | B   | B    | D   | B    | L   | D    | R   | D    | R    | V    |
| 270         | 27 pF   | Z   | T   | W   | X    | B   | W    | D   | B    | D   | D    | L   | D    | R    | V    |
| 330         | 33 pF   | Z   | T   | X   | T    | B   | W    | B   | B    | D   | B    | L   | D    | L    | R    |
| 390         | 39 pF   | Z   | T   | X   | T    | W   | X    | B   | W    | D   | B    | D   | B    | L    | R    |
| 470         | 47 pF   | Y   | Z   | T   | T    | W   | X    | B   | W    | D   | B    | D   | B    | D    | R    |
| 500         | 50 pF   | Y   | Z   | T   | Z    | W   | X    | B   | W    | B   | B    | D   | B    | D    | R    |
| 510         | 51 pF   | Y   | Z   | T   | Z    | W   | X    | B   | W    | B   | B    | D   | B    | D    | R    |
| 560         | 56 pF   | Y   | Z   | T   | Z    | X   | T    | B   | X    | B   | W    | D   | B    | D    | R    |
| 680         | 68 pF   |     | Z   | Z   | Z    | X   | T    | W   | X    | B   | W    | B   | W    | D    | L    |
| 820         | 82 pF   |     | Y   | Z   | Y    | T   | Z    | W   | T    | B   | X    | B   | X    | B    | D    |
| 101         | 100 pF  |     | Y   | Z   | Y    | T   | Z    | X   | T    | W   | X    | B   | X    | B    | D    |
| 121         | 120 pF  |     |     | Y   | Y    | T   | Z    | T   | T    | W   | T    | W   | X    | B    | D    |
| 151         | 150 pF  |     |     | Y   |      | Z   | Y    | T   | Z    | X   | T    | W   | X    | B    | B    |
| 181         | 180 pF  |     |     | Y   |      | Z   | Y    | T   | Z    | T   | T    | W   | T    | W    | B    |
| 201         | 200 pF  |     |     |     |      | Z   | Y    | Z   | Z    | T   | Z    | X   | T    | W    | B    |
| 221         | 220 pF  |     |     |     |      | Y   | Y    | Z   | Z    | T   | Z    | X   | T    | W    | B    |
| 271         | 270 pF  |     |     |     |      | Y   |      | Z   | Y    | T   | Z    | T   | Z    | X    | W    |
| 331         | 330 pF  |     |     |     |      | Y   |      | Y   | Y    | Z   | Z    | T   | Z    | X    | W    |
| 391         | 390 pF  |     |     |     |      |     |      | Y   |      | Z   | Y    | T   | Z    | T    | X    |
| 471         | 470 pF  |     |     |     |      |     |      | Y   |      | Z   | Y    | Z   | Y    | T    | X    |
| 561         | 560 pF  |     |     |     |      |     |      | Y   |      | Y   |      | Z   | Y    | T    | T    |
| 681         | 680 pF  |     |     |     |      |     |      |     |      | Y   |      | Z   | Y    | Z    | T    |
| 821         | 820 pF  |     |     |     |      |     |      |     |      |     |      | Z   |      | Z    | T    |
| 102         | 1000 pF |     |     |     |      |     |      |     |      |     |      | Y   |      | Z    | T    |
| 122         | 1200 pF |     |     |     |      |     |      |     |      |     |      | Y   |      | Y    | Z    |
| 152         | 1500 pF |     |     |     |      |     |      |     |      |     |      |     |      | Y    | Y    |
| 182         | 1800 pF |     |     |     |      |     |      |     |      |     |      |     |      |      | Y    |
| 202         | 2000 pF |     |     |     |      |     |      |     |      |     |      |     |      |      | Y    |
| 252         | 2500 pF |     |     |     |      |     |      |     |      |     |      |     |      |      | Y    |
| 402         | 4000 pF |     |     |     |      |     |      |     |      |     |      |     |      |      |      |

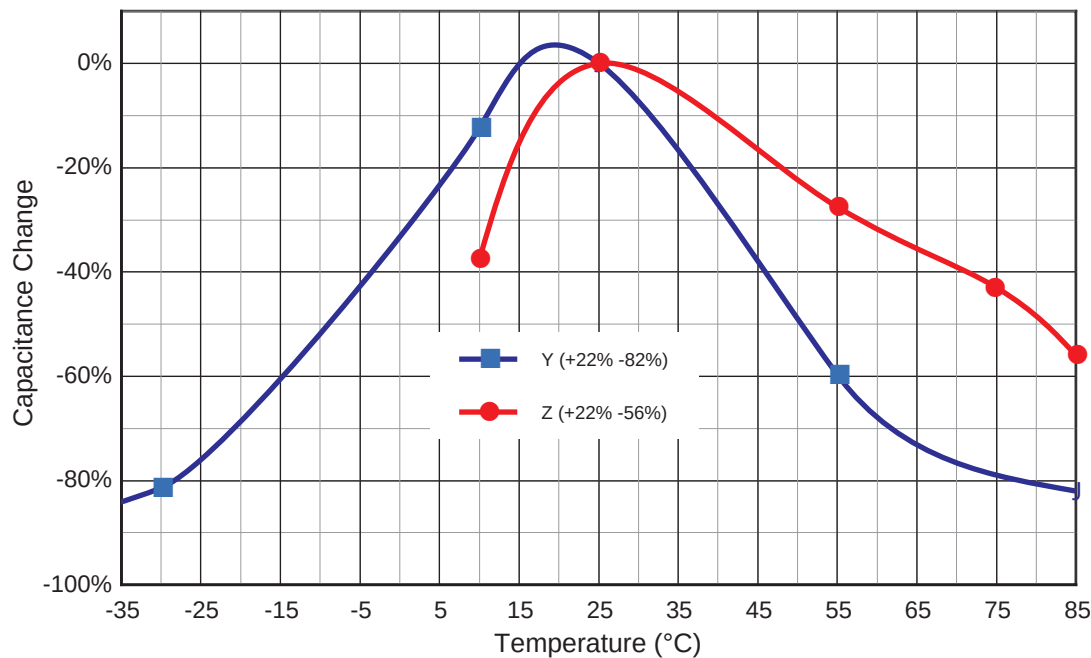
## HOW TO ORDER U, V, & B SERIES



NOTE: The "U" series thick-film terminated SLC's are fully supported and orders may be placed using legacy part numbers. These parts are identified by alpha case size code and contain termination codes "G" or "9" i.e. 500UDDB200JG4W.



## SLC TEMPERATURE CHARACTERISTICS



## METALLIZATION CHARACTERISTICS FOR GBBL / SLC

|                    |                                                                                                                                                                |                                                                                                                                                       |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| METALLIZATION TYPE | TiW/Au (Titanium-Tungsten/Gold)                                                                                                                                | TiW/Ni/Au (Titanium-Tungsten/Nickel/Gold)                                                                                                             |
| TERMINATION CODE   | T                                                                                                                                                              | N                                                                                                                                                     |
| ATTACHMENT         | Wire / Ribbon Bonding                                                                                                                                          | Pb/Sn or Au/Sn Soldering                                                                                                                              |
| COMPATIBILITY      | Silver or Gold Conductive Epoxy<br>Au/Ge or Au/Si Eutectic Preform<br>Excellent High Temperature Resistance (400°C)<br>Unsuitable for Pb/Sn or Au/Sn Soldering | Au/Sn Eutectic Preform<br>Moderate High Temp. Resistance (325°C)<br>Long term high temperature may cause Ni diffusion and wire bond problems on Au/Ge |

SLC thick-film terminations ( legacy codes "G" and "9") are still supported. Contact the factory for compatibility information.

## ENVIRONMENTAL CHARACTERISTICS FOR GBBL / SLC

|                         |                                           |                                                      |
|-------------------------|-------------------------------------------|------------------------------------------------------|
| BOND STRENGTH:          | Exceeds MIL-S-883, Meth. 2011             | VIBRATION: MIL-S-202, Meth. 204-G, (30g, 10-2000 Hz) |
| SHEAR STRENGTH:         | Exceeds MIL-S-883, Meth. 2019             | BURN-IN/LIFE TEST: MIL-S-202, Meth. 108, A/F         |
| SOLDER HEAT RESISTANCE: | MIL-S-202, Meth. 210-C, (260±5°C, 5 sec.) | LOW VOLTAGE HUMIDITY: Mil-C-49464, Para. 3.17        |
| SOLDERABILITY:          | MIL-S-202, Meth. 208, (245±5°C, 5 sec.)   | BAROMETRIC PRESSURE: MIL-S-202, Meth. 105, B         |
| SHOCK:                  | MIL-S-202, Meth. 213-I, (100g, 6 msec.)   | IMMERSION/SALT SPRAY: MIL-S-202, Meth. 104, B        |
| THERMAL SHOCK:          | MIL-S-202, Meth. 107, A, (-55 to +125°C)  | MOISTURE RESISTANCE: MIL-S-202, Meth. 106            |

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