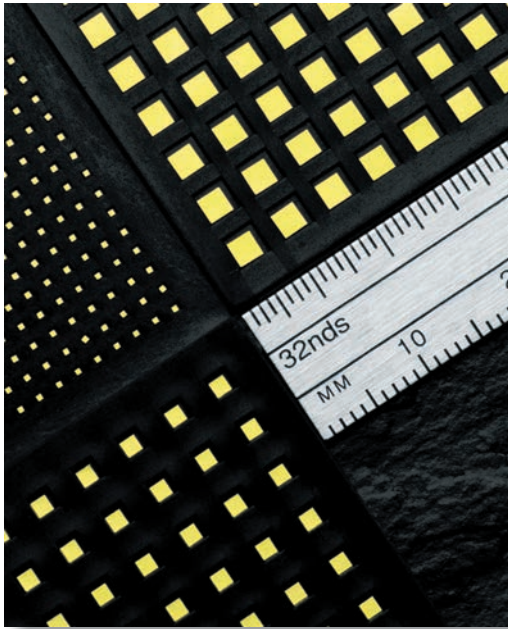


# SLC MICROWAVE / MILLIMETERWAVE CAPACITORS



## 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 ± 120 ppm          | -55°C to +125°C   | ≤ 0.25%            | > 1000 GΩ             | 1          | J,K (B-D)                          |
| V               | 160          | -1500 ± 500 ppm         | -55°C to +125°C   | ≤ 0.25%            | > 1000 GΩ             | 1          | J,K (B-D)                          |
| R               | 280          | -2200 ± 500 ppm         | -55°C to +125°C   | ≤ 0.25%            | > 1000 GΩ             | 1          | J,K (B-D)                          |
| L               | 350          | -3300 ± 500 ppm         | -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                                |

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



## 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).

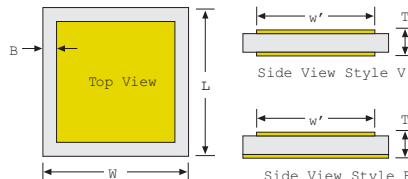
## V-SERIES & B-SERIES CAPACITANCE SELECTION

| CAP. CODE | CAP. VALUE | V10  | V12  | V15  | V20  | V25  | V30  | V40  | V50  |
|-----------|------------|------|------|------|------|------|------|------|------|
|           |            | 100V | 100V | 100V | 100V | 100V | 100V | 100V | 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 | CAP. VALUE | V10  | V12  | V15  | V20  | V25  | V30  | V40  | V50  |
|-----------|------------|------|------|------|------|------|------|------|------|
|           |            | 100V | 100V | 100V | 100V | 100V | 100V | 100V | 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    | 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    |

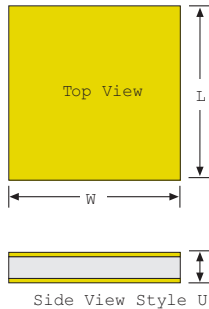
Color breaks used to highlight changes in dielectric material, letters indicate the specific material.

## 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            | U90            |                |
|---|--------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| W<br>(mm)   | + .001"<br>- .003" | .010<br>(0.25)                             | .012<br>(0.30) | .015<br>(0.38) | .020<br>(0.51) | .025<br>(0.64) | .030<br>(0.76) | .035<br>(0.89) | .050<br>(1.27) | .070<br>(1.78) | .090<br>(2.29) |
| L<br>(mm)   | MAX.               | .012<br>(0.30)                             | .015<br>(0.38) | .020<br>(0.51) | .025<br>(0.64) | .030<br>(0.76) | .035<br>(0.89) | .040<br>(1.02) | .060<br>(1.52) | .080<br>(2.03) | .100<br>(2.54) |
| T<br>(mm)   | ±.002"             | NOM. 0.004" ~ 0.008"<br>(NOM. 0.10 ~ 0.20) |                |                |                |                |                |                |                |                |                |
| Contact factory for other sizes, values or configurations |                    |  |                |                |                |                |                |                |                |                |                |

| CAPACITANCE |        | U10 | U12 | U15 |      | U20 |      | U25 |      | U30 |      | U35 |      | U50  | U70  | U90  | CAPACITANCE |        |
|-------------|--------|-----|-----|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|------|-------------|--------|
| CODE        | VALUE  | 50V | 50V | 50V | 100V | 50V | 100V | 50V | 100V | 50V | 100V | 50V | 100V | 100V | 100V | 100V | CODE        | VALUE  |
| OR1         | 0.1 pF | C   |     |     |      |     |      |     |      |     |      |     |      |      |      |      | OR1         | 0.1 pF |
| OR2         | 0.2 pF | K   | C   |     |      |     |      |     |      |     |      |     |      |      |      |      | OR2         | 0.2 pF |
| OR3         | 0.3 pF | N   | K   | C   | K    |     |      |     |      |     |      |     |      |      |      |      | OR3         | 0.3 pF |
| OR4         | 0.4 pF | N   | N   | K   | K    | C   | C    |     | C    |     |      |     |      |      |      |      | OR4         | 0.4 pF |
| OR5         | 0.5 pF | U   | N   | K   | N    | C   | K    |     | C    |     |      |     |      |      |      |      | OR5         | 0.5 pF |
| OR6         | 0.6 pF | V   | N   | K   | N    | C   | K    | C   | C    |     |      |     | C    |      |      |      | OR6         | 0.6 pF |
| OR7         | 0.7 pF | V   | N   | N   | N    | K   | K    | C   | K    |     | C    |     | C    |      |      |      | OR7         | 0.7 pF |
| OR8         | 0.8 pF | V   | U   | N   | N    | K   | N    | C   | K    |     | C    |     | C    |      |      |      | OR8         | 0.8 pF |
| OR9         | 0.9 pF | R   | V   | N   | U    | K   | N    | C   | K    | C   | C    |     | C    |      |      |      | OR9         | 0.9 pF |
| 1R0         | 1.0 pF | R   | V   | N   | U    | K   | N    | K   | K    | C   | K    |     | C    | C    |      |      | 1R0         | 1.0 pF |
| 1R1         | 1.1 pF | R   | V   | N   | V    | K   | N    | K   | K    | C   | K    | C   | C    | C    |      |      | 1R1         | 1.1 pF |
| 1R2         | 1.2 pF | R   | V   | N   | V    | N   | N    | K   | N    | C   | K    | C   | C    | C    |      |      | 1R2         | 1.2 pF |
| 1R3         | 1.3 pF | R   | V   | N   | V    | N   | N    | K   | N    | C   | K    | C   | C    | C    |      |      | 1R3         | 1.3 pF |
| 1R4         | 1.4 pF | L   | V   | U   | V    | N   | N    | K   | N    | K   | K    | C   | K    | C    |      |      | 1R4         | 1.4 pF |
| 1R5         | 1.5 pF | L   | V   | U   | V    | N   | N    | K   | N    | K   | K    | C   | K    | C    |      |      | 1R5         | 1.5 pF |
| 1R6         | 1.6 pF | L   | R   | U   | V    | N   | U    | K   | N    | K   | N    | C   | K    | C    |      |      | 1R6         | 1.6 pF |
| 1R7         | 1.7 pF | L   | R   | U   | V    | N   | U    | K   | N    | K   | N    | C   | K    | C    |      |      | 1R7         | 1.7 pF |
| 1R8         | 1.8 pF | L   | R   | U   | R    | N   | U    | N   | N    | K   | N    | K   | K    | C    |      |      | 1R8         | 1.8 pF |
| 1R9         | 1.9 pF | L   | R   | V   | R    | N   | U    | N   | N    | K   | N    | K   | K    | C    |      |      | 1R9         | 1.9 pF |
| 2R0         | 2.0 pF | D   | R   | V   | R    | N   | U    | N   | N    | K   | N    | K   | K    | K    |      |      | 2R0         | 2.0 pF |
| 2R1         | 2.1 pF | D   | L   | V   | R    | N   | V    | N   | N    | K   | N    | K   | K    | K    | C    |      | 2R1         | 2.1 pF |
| 2R2         | 2.2 pF | D   | L   | V   | R    | U   | V    | N   | U    | K   | N    | K   | N    | K    | C    |      | 2R2         | 2.2 pF |
| 2R4         | 2.4 pF | D   | L   | V   | R    | U   | V    | N   | U    | K   | N    | K   | N    | K    | C    |      | 2R4         | 2.4 pF |
| 2R7         | 2.7 pF | D   | L   | R   | L    | U   | V    | N   | U    | N   | N    | K   | N    | K    | C    | C    | 2R7         | 2.7 pF |
| 3R0         | 3.0 pF | D   | L   | R   | L    | U   | V    | N   | U    | N   | N    | K   | N    | K    | C    | C    | 3R0         | 3.0 pF |
| 3R3         | 3.3 pF | D   | L   | R   | L    | V   | R    | N   | V    | N   | U    | K   | N    | K    | C    | C    | 3R3         | 3.3 pF |
| 3R6         | 3.6 pF | D   | D   | R   | L    | V   | R    | U   | V    | N   | U    | K   | N    | K    | C    | C    | 3R6         | 3.6 pF |
| 3R9         | 3.9 pF | B   | D   | R   | L    | V   | R    | U   | V    | N   | U    | N   | N    | N    | C    | C    | 3R9         | 3.9 pF |
| 4R3         | 4.3 pF | B   | D   | R   | D    | V   | R    | U   | V    | N   | V    | N   | N    | N    | C    | C    | 4R3         | 4.3 pF |
| 4R7         | 4.7 pF | B   | D   | L   | D    | R   | R    | U   | R    | N   | V    | N   | N    | N    | K    | C    | 4R7         | 4.7 pF |
| 5R1         | 5.1 pF | B   | D   | L   | D    | R   | R    | V   | R    | U   | V    | N   | U    | N    | K    | C    | 5R1         | 5.1 pF |
| 5R6         | 5.6 pF | B   | D   | L   | D    | R   | L    | V   | R    | U   | V    | N   | U    | N    | K    | K    | 5R6         | 5.6 pF |
| 6R2         | 6.2 pF | B   | D   | D   | D    | R   | L    | V   | R    | U   | V    | N   | V    | N    | K    | K    | 6R2         | 6.2 pF |
| 6R8         | 6.8 pF | B   | B   | D   | D    | R   | L    | R   | R    | V   | R    | N   | V    | N    | K    | K    | 6R8         | 6.8 pF |
| 7R5         | 7.5 pF | W   | B   | D   | D    | R   | D    | R   | L    | V   | R    | U   | V    | N    | K    | K    | 7R5         | 7.5 pF |
| 8R2         | 8.2 pF | W   | B   | D   | B    | L   | D    | R   | L    | V   | R    | U   | V    | N    | N    | K    | 8R2         | 8.2 pF |
| 9R1         | 9.1 pF | W   | B   | D   | B    | L   | D    | R   | L    | V   | R    | U   | V    | N    | N    | N    | 9R1         | 9.1 pF |
| 100         | 10 pF  | X   | B   | D   | B    | L   | D    | R   | L    | R   | L    | V   | R    | V    | N    | N    | 100         | 10 pF  |

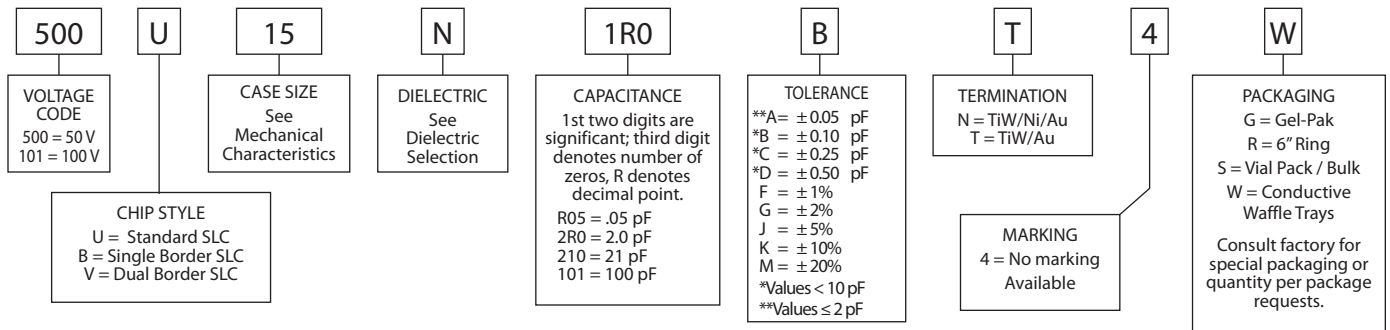
Color breaks used to highlight changes in dielectric material, letters indicate the specific material

## U SERIES SLC CAPACITANCE SELECTION (CONT.)

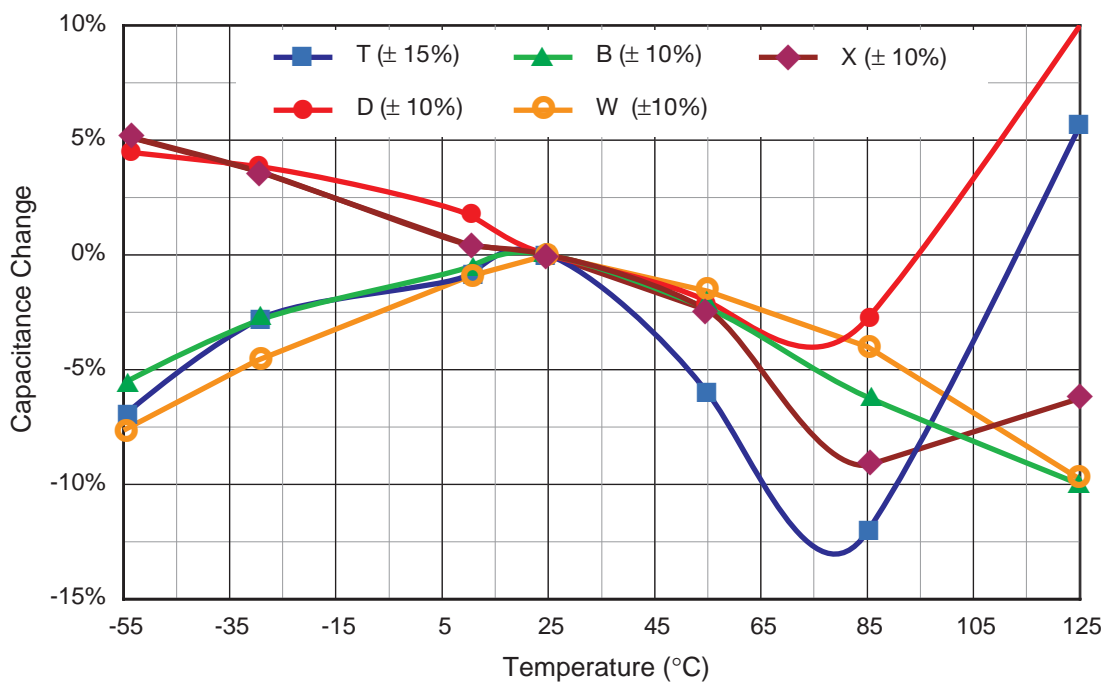
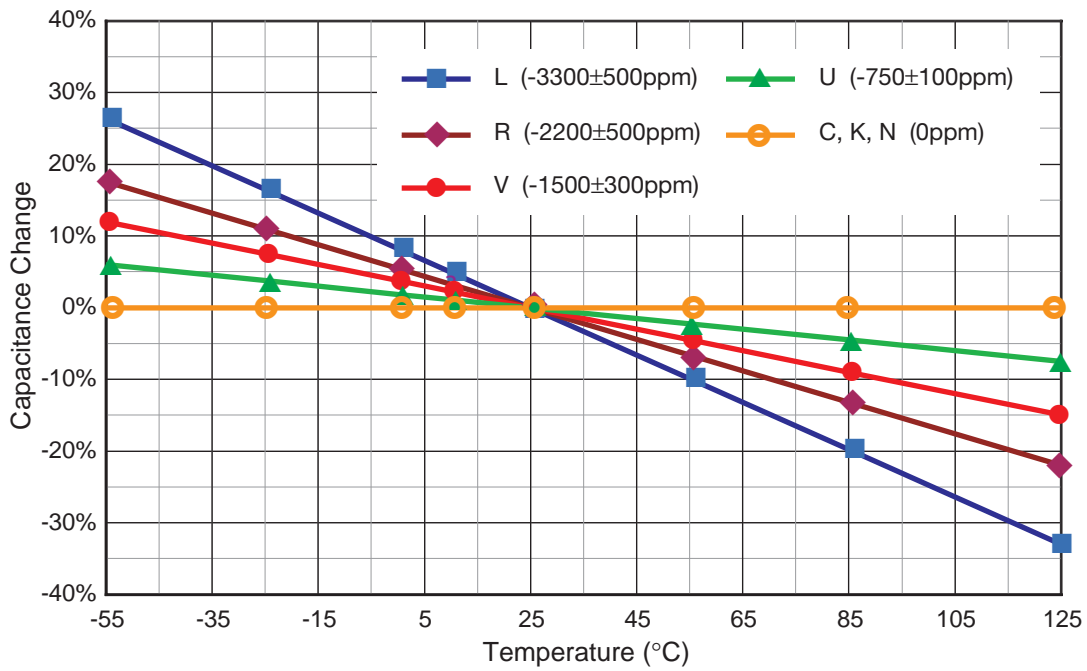
| CAPACITANCE |         | U10 | U12 | U15 |      | U20 |      | U25 |      | U30 |      | U35 |      | U50  | U70  | U90  | CAPACITANCE |         |
|-------------|---------|-----|-----|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|------|-------------|---------|
| CODE        | VALUE   | 50V | 50V | 50V | 100V | 50V | 100V | 50V | 100V | 50V | 100V | 50V | 100V | 100V | 100V | 100V | CODE        | VALUE   |
| 100         | 10 pF   | X   | B   | D   | B    | L   | D    | R   | L    | R   | L    | V   | R    | V    | N    | N    | 100         | 10 pF   |
| 120         | 12 pF   | X   | W   | B   | B    | D   | D    | L   | D    | R   | L    | V   | R    | V    | N    | N    | 120         | 12 pF   |
| 150         | 15 pF   | T   | W   | B   | W    | D   | B    | D   | D    | R   | L    | R   | L    | V    | N    | N    | 150         | 15 pF   |
| 180         | 18 pF   | T   | W   | B   | W    | D   | B    | D   | D    | L   | D    | R   | L    | V    | V    | N    | 180         | 18 pF   |
| 200         | 20 pF   | T   | X   | W   | W    | D   | B    | D   | D    | L   | D    | R   | D    | R    | V    | N    | 200         | 20 pF   |
| 220         | 22 pF   | T   | X   | W   | X    | B   | B    | D   | B    | L   | D    | R   | D    | R    | V    | N    | 220         | 22 pF   |
| 270         | 27 pF   | Z   | T   | W   | X    | B   | W    | D   | B    | D   | D    | L   | D    | R    | V    | U    | 270         | 27 pF   |
| 330         | 33 pF   | Z   | T   | X   | T    | B   | W    | B   | B    | D   | B    | L   | D    | L    | R    | U    | 330         | 33 pF   |
| 390         | 39 pF   | Z   | T   | X   | T    | W   | X    | B   | W    | D   | B    | D   | B    | L    | R    | V    | 390         | 39 pF   |
| 470         | 47 pF   | Y   | Z   | T   | T    | W   | X    | B   | W    | D   | B    | D   | B    | D    | R    | V    | 470         | 47 pF   |
| 500         | 50 pF   | Y   | Z   | T   | Z    | W   | X    | B   | W    | B   | B    | D   | B    | D    | R    | V    | 500         | 50 pF   |
| 510         | 51 pF   | Y   | Z   | T   | Z    | W   | X    | B   | W    | B   | B    | D   | B    | D    | R    | R    | 510         | 51 pF   |
| 560         | 56 pF   | Y   | Z   | T   | Z    | X   | T    | B   | X    | B   | W    | D   | B    | D    | R    | R    | 560         | 56 pF   |
| 680         | 68 pF   |     | Z   | Z   | Z    | X   | T    | W   | X    | B   | W    | B   | W    | D    | L    | R    | 680         | 68 pF   |
| 820         | 82 pF   |     | Y   | Z   | Y    | T   | Z    | W   | T    | B   | X    | B   | X    | B    | D    | R    | 820         | 82 pF   |
| 101         | 100 pF  |     | Y   | Z   | Y    | T   | Z    | X   | T    | W   | X    | B   | X    | B    | D    | L    | 101         | 100 pF  |
| 121         | 120 pF  |     |     | Y   | Y    | T   | Z    | T   | T    | W   | T    | W   | X    | B    | D    | D    | 121         | 120 pF  |
| 151         | 150 pF  |     |     | Y   |      | Z   | Y    | T   | Z    | X   | T    | W   | X    | B    | B    | D    | 151         | 150 pF  |
| 181         | 180 pF  |     |     | Y   |      | Z   | Y    | T   | Z    | T   | T    | W   | T    | W    | B    | D    | 181         | 180 pF  |
| 201         | 200 pF  |     |     |     |      | Z   | Y    | Z   | Z    | T   | Z    | X   | T    | W    | B    | B    | 201         | 200 pF  |
| 221         | 220 pF  |     |     |     |      | Y   | Y    | Z   | Z    | T   | Z    | X   | T    | W    | B    | B    | 221         | 220 pF  |
| 271         | 270 pF  |     |     |     |      | Y   |      | Z   | Y    | T   | Z    | T   | Z    | X    | W    | B    | 271         | 270 pF  |
| 331         | 330 pF  |     |     |     |      | Y   |      | Y   | Y    | Z   | Z    | T   | Z    | X    | W    | W    | 331         | 330 pF  |
| 391         | 390 pF  |     |     |     |      |     |      | Y   |      | Z   | Y    | T   | Z    | T    | X    | W    | 391         | 390 pF  |
| 471         | 470 pF  |     |     |     |      |     |      | Y   |      | Z   | Y    | Z   | Y    | T    | X    | W    | 471         | 470 pF  |
| 561         | 560 pF  |     |     |     |      |     |      | Y   |      | Y   |      | Z   | Y    | T    | T    | X    | 561         | 560 pF  |
| 681         | 680 pF  |     |     |     |      |     |      |     |      | Y   |      | Z   | Y    | Z    | T    | X    | 681         | 680 pF  |
| 821         | 820 pF  |     |     |     |      |     |      |     |      |     |      | Y   |      | Z    | T    | X    | 821         | 820 pF  |
| 102         | 1000 pF |     |     |     |      |     |      |     |      |     |      | Y   |      | Z    | T    | T    | 102         | 1000 pF |
| 122         | 1200 pF |     |     |     |      |     |      |     |      |     |      |     |      | Y    | Z    | T    | 122         | 1200 pF |
| 152         | 1500 pF |     |     |     |      |     |      |     |      |     |      |     |      | Y    | Y    | Z    | 152         | 1500 pF |
| 182         | 1800 pF |     |     |     |      |     |      |     |      |     |      |     |      |      | Y    | Z    | 182         | 1800 pF |
| 202         | 2000 pF |     |     |     |      |     |      |     |      |     |      |     |      |      | Y    | Z    | 202         | 2000 pF |
| 252         | 2500 pF |     |     |     |      |     |      |     |      |     |      |     |      |      | Y    | Y    | 252         | 2500 pF |
| 402         | 4000 pF |     |     |     |      |     |      |     |      |     |      |     |      |      | Y    | Y    | 402         | 4000 pF |

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

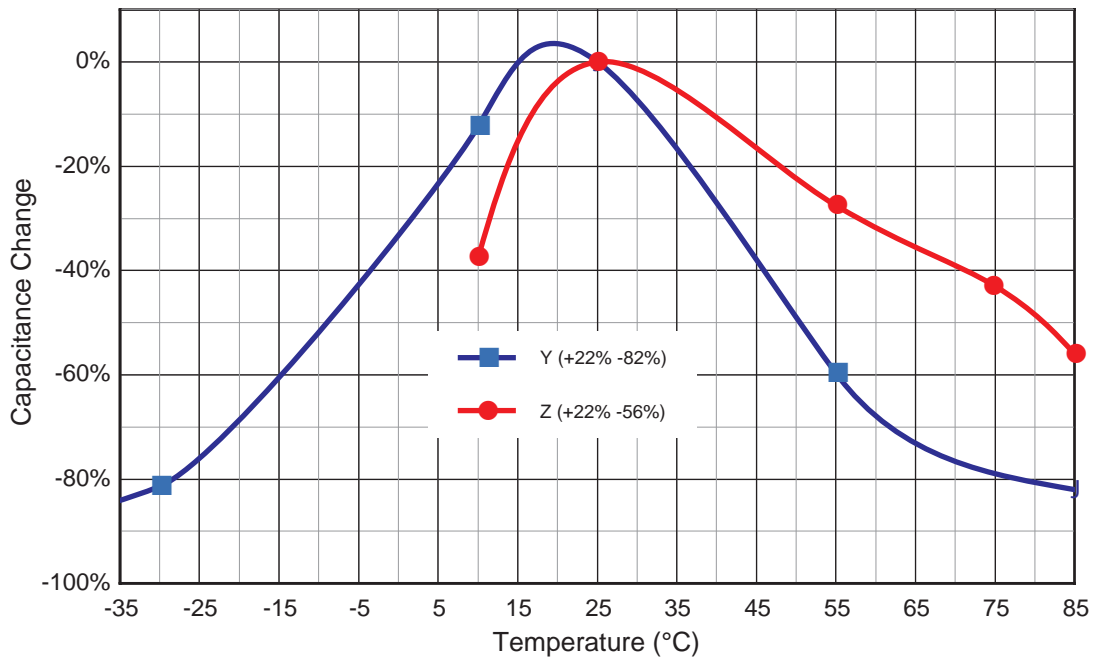
## HOW TO ORDER U, V, & B SERIES



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. 500UDB200JG4W.



## 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 COMPATIBILITY | Wire / Ribbon Bonding<br>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 | Pb/Sn or Au/Sn Soldering<br>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            |