



**THE DATASHEET OF
SCD334K162A3Z25-F**



Type SCD IGBT Snubber Capacitor Modules

High dV/dt Direct Mount IGBT Snubber



Style SCD offers protection against voltage transients in low to medium current IGBT applications where high dV/dt is encountered. Connect these capacitors from C1 to E2 on a dual IGBT module or from P to N on a six-pack module to eliminate severe voltage transients. Parts ending with Z25 fit IGBTs with 23mm, 25mm and 28mm lead spacing. If you have a preferred lead spacing, please specify.

Highlights

- High peak & RMS current capability
- Mount directly to the IGBT module
- Low inductance
- Low loss polypropylene dielectric
- Self healing
- Other terminal spacing and capacitance values available.
- We can build to your specs!
- 85 °C ambient temperature

Specifications

| | |
|--|--|
| Capacitance Range | 0.22 to 4.7 μ F |
| Capacitance Tolerance | \pm 10% (K) standard, \pm 5% (J) optional |
| Rated Voltage | 600 to 2000 Vdc |
| Operating Temperature Range | -55 °C to 85 °C |
| Maximum rms Current | Check tables for values |
| Test Voltage between Terminals @ 25°C | 160% rated DC voltage for 60 s |
| Test Voltage between Terminals & Case @ 25°C | 3 kVac @ 50/60 Hz for 60 s |
| Life Test | 2000 h @ 85 °C, 125% rated DC voltage |
| Life Expectancy | 60,000 h @ rated Vdc, 70 °C 30,000 h @ rated Vac, 70 °C |
| Regulatory Information | |

Dimensions



| Construction Details | |
|----------------------|-------------------|
| Case Material | Plastic UL94V-0 |
| Resin Material | Dry Resin UL94V-0 |
| Terminal Material | Tin Plated Copper |

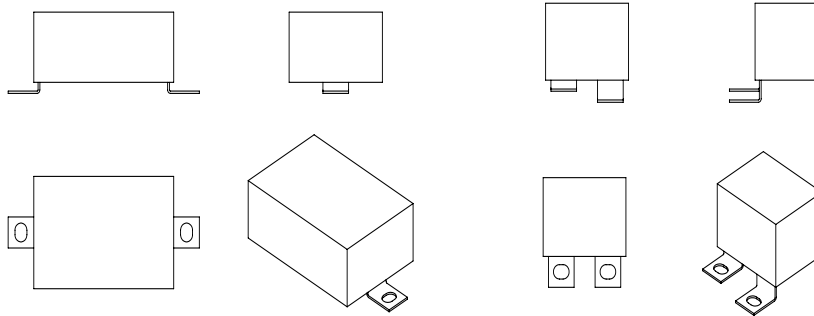
Tolerances: \pm 0.5mm unless otherwise specified

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Mounting Across the Bus?

CDE Will Accommodate Your Bus Structure



Dual Snubber Assembly Option



Part Numbering System

| SCD | 105 | K | 122 | A | 3 | - | 25 | -F |
|-------------------------|-------------------|----------------|----------------|------------------------|----------------------------|-------------------|-------------|--------------------------|
| Series Type Designation | Capacitance in pF | Tolerance Code | Voltage | Internal Assembly Code | Type of Section to be used | Lug Configuration | Lug Spacing | RoHS Compliant Indicator |
| | 104 = 0.1 μ F | J = \pm 5% | 601 = 600 Vdc | | | Z = Standard | 22 = 22 mm | |
| | 105 = 1 μ F | K = \pm 10% | 122 = 1200 Vdc | | | 25.4 mm C-C | 24 = 24 mm | |
| | 225 = 2.2 μ F | | 202 = 2000 Vdc | | | | 25 = 25 mm | |
| | | | | | | | 28 = 28 mm | |
| | | | | | | | 29 = 29 mm | |

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Ratings

Note: Other ratings, sizes and performance specification available upon request. Contact us.

| Catalog Part Number | Cap. (μ F) | Volts | | dV/dt (V/ μ s) | Ipk (A) | ESR (m Ω) | I _{rms} 100 kHz | | | |
|------------------------|--------------------|----------------|----------------|-----------------------|------------|----------------------|-----------------------------|-----------|-----------|-----------|
| | | Volts (Vdc) | 60 Hz (Vac) | | | | 55 °C (Arms) | W (mm) | L (mm) | H (mm) |
| 600 Vdc | | | | | | | | | | |
| SCD474K601A3Z25-F | 0.47 | 600 | 275 | 250 | 118 | 9 | 9.2 | 24.6 | 47.0 | 24.1 |
| SCD684K601A3Z25-F | 0.68 | 600 | 275 | 250 | 170 | 7 | 11.5 | 29.0 | 47.0 | 26.7 |
| SCD105K601A3Z25-F | 1.00 | 600 | 275 | 200 | 200 | 5 | 14.0 | 29.0 | 47.0 | 26.7 |
| SCD155K601A3Z25-F | 1.50 | 600 | 275 | 150 | 225 | 4 | 17.1 | 29.0 | 47.0 | 26.7 |
| SCD205K601A3Z25-F | 2.00 | 600 | 275 | 150 | 300 | 3 | 20.7 | 32.3 | 45.1 | 35.6 |
| SCD335K601A3Z25-F | 3.30 | 600 | 400 | 300 | 825 | 5 | 35.0 | 38.1 | 52.1 | 38.1 |
| SCD475K601A3Z25-F | 4.70 | 600 | 400 | 250 | 1175 | 4 | 46.2 | 46.4 | 56.5 | 50.2 |
| 1000 Vdc | | | | | | | | | | |
| SCD474K102A3Z25-F | 0.47 | 1000 | 275 | 250 | 118 | 11 | 9.2 | 24.6 | 47.0 | 24.1 |
| SCD474K102D3Z25-F | 0.47 | 1000 | 500 | 700 | 329 | 8 | 12.1 | 29.0 | 47.0 | 26.7 |
| SCD684K102A3Z25-F | 0.68 | 1000 | 275 | 200 | 136 | 7 | 11.5 | 29.0 | 47.0 | 26.7 |
| SCD684K102D3Z25-F | 0.68 | 1000 | 500 | 500 | 340 | 7 | 14.4 | 29.0 | 47.0 | 26.7 |
| SCD105K102A3Z25-F | 1.00 | 1000 | 275 | 200 | 200 | 4 | 14.0 | 29.0 | 47.0 | 26.7 |
| SCD105K102D3Z25-F | 1.00 | 1000 | 500 | 400 | 400 | 5 | 17.5 | 29.0 | 47.0 | 26.7 |
| SCD155K102A3Z25-F | 1.50 | 1000 | 275 | 160 | 240 | 4 | 17.9 | 32.3 | 45.1 | 35.6 |
| SCD155K102D3Z25-F | 1.50 | 1000 | 500 | 400 | 600 | 3 | 22.4 | 34.8 | 45.1 | 35.6 |
| SCD205K102A3Z25-F | 2.00 | 1000 | 275 | 160 | 320 | 4 | 20.9 | 34.8 | 45.1 | 35.6 |
| SCD205K102D3Z25-F | 2.00 | 1000 | 500 | 400 | 800 | 5 | 26.2 | 38.1 | 52.1 | 38.1 |
| 1200 Vdc | | | | | | | | | | |
| SCD224K122A3Z25-F | 0.22 | 1200 | 500 | 650 | 143 | 19 | 7.9 | 24.6 | 47.0 | 24.1 |
| SCD334K122A3Z25-F | 0.33 | 1200 | 500 | 650 | 215 | 13 | 10.0 | 29.0 | 47.0 | 26.7 |
| SCD474K122A3Z25-F | 0.47 | 1200 | 500 | 500 | 235 | 10 | 12.0 | 29.0 | 47.0 | 26.7 |
| SCD684K122A3Z25-F | 0.68 | 1200 | 500 | 500 | 340 | 7 | 15.1 | 32.3 | 45.1 | 35.6 |
| SCD105K122A3Z25-F | 1.00 | 1200 | 500 | 500 | 500 | 5 | 18.5 | 34.8 | 45.1 | 35.6 |
| SCD155K122A3Z25-F | 1.50 | 1200 | 500 | 400 | 600 | 4 | 23.9 | 38.1 | 52.1 | 38.1 |
| SCD205K122A3Z25-F | 2.00 | 1200 | 500 | 400 | 800 | 4 | 30.1 | 46.4 | 56.5 | 50.2 |
| SCD305K122C3Z25-F | 3.00 | 1200 | 500 | 400 | 1200 | 5 | 39.7 | 76.2 | 62.9 | 38.1 |
| 1600 Vdc | | | | | | | | | | |
| SCD224K162A3Z25-F | 0.22 | 1600 | 500 | 650 | 143 | 19 | 7.9 | 24.6 | 47.0 | 24.1 |
| SCD334K162A3Z25-F | 0.33 | 1600 | 500 | 650 | 215 | 12 | 10.0 | 29.0 | 47.0 | 26.7 |
| SCD474K162A3Z25-F | 0.47 | 1600 | 500 | 650 | 306 | 10 | 12.6 | 32.3 | 45.1 | 35.6 |
| SCD684K162A3Z25-F | 0.68 | 1600 | 500 | 650 | 442 | 7 | 15.3 | 34.8 | 45.1 | 35.6 |
| SCD105K162A3Z25-F | 1.00 | 1600 | 500 | 500 | 500 | 6 | 19.5 | 38.1 | 52.1 | 38.1 |
| SCD155K162A3Z25-F | 1.50 | 1600 | 500 | 400 | 600 | 5 | 25.6 | 41.9 | 68.6 | 38.1 |
| SCD205K162A3Z25-F | 2.00 | 1600 | 500 | 400 | 800 | 5 | 30.6 | 44.5 | 66.7 | 46.4 |
| 2000 Vdc | | | | | | | | | | |
| SCD224K202A3Z25-F | 0.22 | 2000 | 500 | 800 | 176 | 19 | 8.2 | 24.6 | 47.0 | 24.1 |
| SCD334K202A3Z25-F | 0.33 | 2000 | 500 | 800 | 264 | 13 | 10.5 | 32.3 | 45.1 | 35.6 |
| SCD474K202A3Z25-F | 0.47 | 2000 | 500 | 600 | 282 | 10 | 13.0 | 34.3 | 55.9 | 30.5 |
| SCD684K202A3Z25-F | 0.68 | 2000 | 500 | 600 | 408 | 8 | 16.1 | 38.1 | 52.1 | 38.1 |
| SCD105K202A3Z25-F | 1.00 | 2000 | 500 | 600 | 600 | 6 | 21.3 | 46.4 | 56.5 | 50.2 |

Note: Modify Catalog Part Number to specify lead spacing. Example: 44mm spacing would use -44 instead of Z25. Other capacitance values and lead orientations are available. Contact us.

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