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.

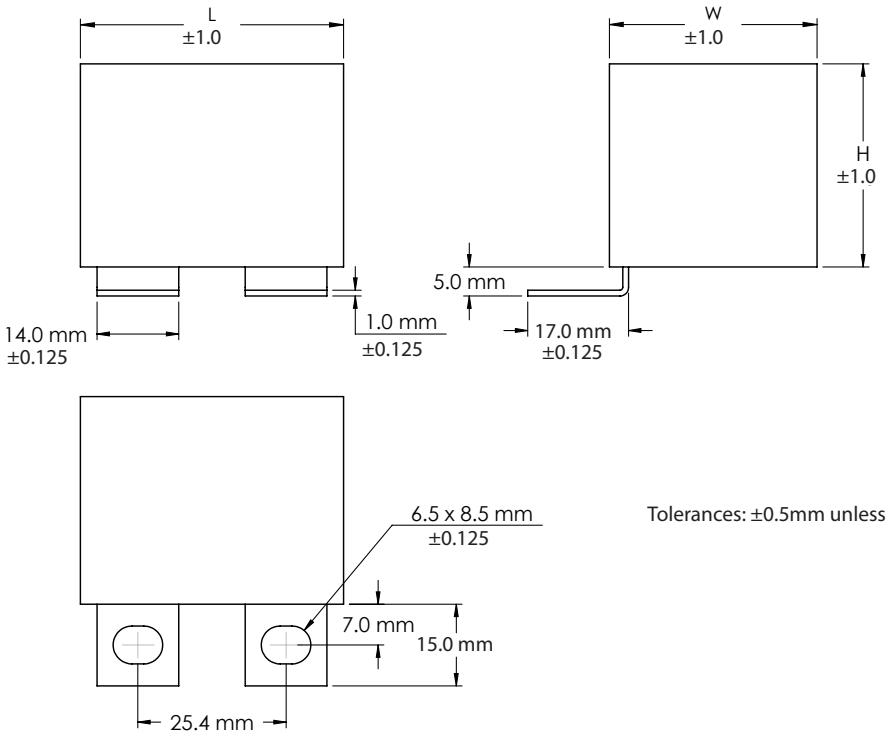
Highlights

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

Dimensions



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

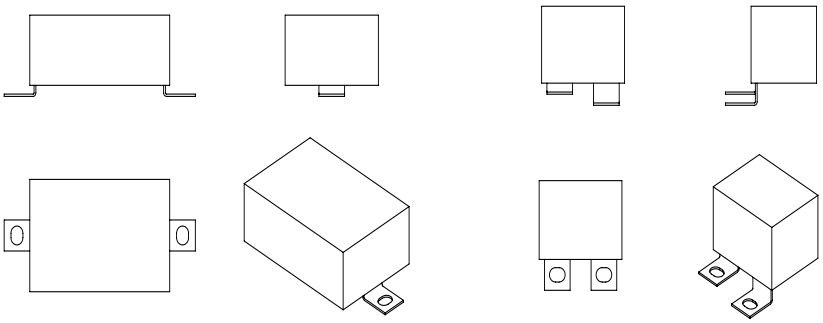
Tolerances: ±0.5mm unless otherwise specified

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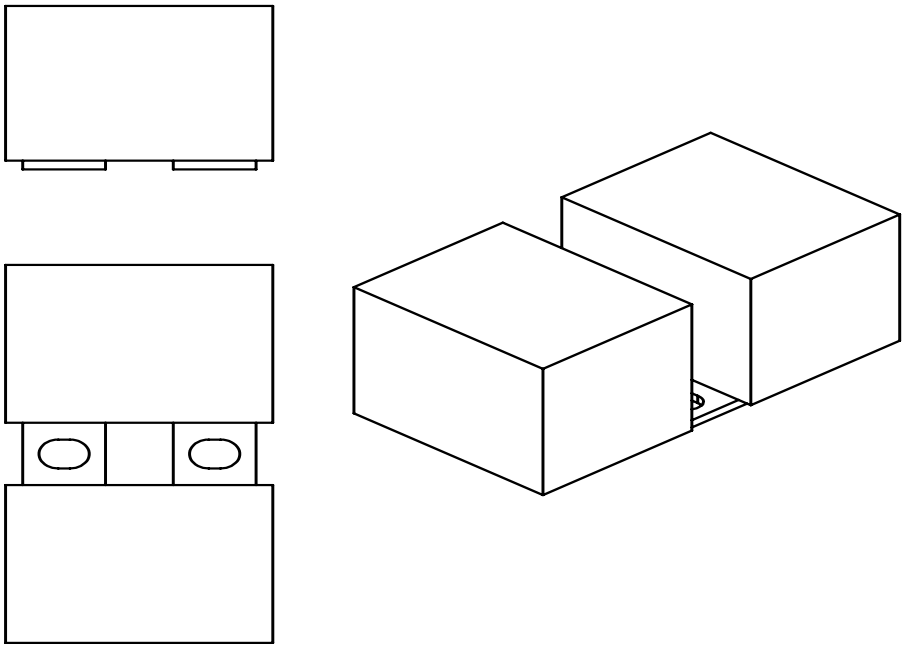
High dV/dt Direct Mount IGBT Snubber

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 µF	J = ±5%	601 = 600 Vdc			Z = Standard	22 = 22 mm	
	105 = 1 µF	K = ±10%	122 = 1200 Vdc			25.4 mm C-C	24 = 24 mm	
	225 = 2.2 µF		202 = 2000 Vdc				25 = 25 mm	
							28 = 28 mm	
							29 = 29 mm	

Type SCD IGBT Snubber Capacitor Modules

High dV/dt Direct Mount IGBT Snubber

Ratings

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

Catalog Part Number	Cap. (µF)	Volts (Vdc)	Volts 60 Hz (Vac)	dV/dt (V/µs)	Ipk (A)	ESR (mΩ)	Irms 100 kHz 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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