PRODUCTS

Film
Snubber Capacitors for IGBT Modules

The Capacitance Company
KEMET
CHARGED.

RichardsonRFPD
An Arrow Company

www.richardsonrfpd.com
800.737.6937 | 630.208.2700

Why Buy From KEMET?

KEMET is your seamless, integrated, single source for capacitance solutions worldwide. With 95% of possible dielectric solutions, global availability, on-time delivery, plus full custom design services. One world. One source. One KEMET.

Features & Benefits

- Wide capacitance & voltage range
- Direct mount version with six tab styles to fit most IGBTs
- 4-pin PCB mount version available
- Stable temperature characteristics
- Pb-free/RoHS-compliant
- Made with low-loss polypropylene film
- Safe failure mode

Customer Questions

- Does the IGBT module have screw or pin connections?
- What is the current rating of the IGBT?
- Will the snubber capacitor be used by itself or with a diode in a network?
- What rated voltage is required?

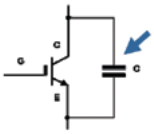
For more information, samples and engineering kits, please visit us at www.kemet.com or call 1.877.myKEMET.

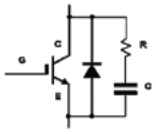
Programs Supported

- Snubber
- Switching
- Snubber-IGBT
- Switching-IGBT

	Screw connections	Pin connections
Snubber by itself	 Series C4BS, C4BT direct mount — Cap value = 1 µF per 100A IGBT rating	 Series C4AS, C4AT PC board mount — Cap value = 1 µF per 100A IGBT rating
Snubber with diode	 Series C4AS, C4AT PC board mount — Cap value = 0.25 µF per 100A IGBT rating	 Series C4AS, C4AT PC board mount — Cap value = 0.25 µF per 100A IGBT rating

This is a starting point. The engineer will pick the capacitor voltage and final cap value.


Snubber capacitor by itself


Snubber capacitor in a network

KEMET Products & Competition

Series	Capacitor Type	Rated Voltage	Cap Range	Characteristics	Competition
C4AS	Radial Leads	850 VDC/500 VAC	0.15 – 5.0 µF	• Snubber applications	WIMA,
		1000 VDC/600 VAC	0.15 – 4.7 µF	• Climatic category (IEC 60068-1) 40/85/56	TDK-EPC,
		1200 VDC/630 VAC	0.1 – 3.5 µF	• Pulse rise time (dv/dt) 469 to 3360 V/µs	Vishay,
		2000 VDC/700 VAC	0.033 – 1.5 µF	• Pitch (p) p = 27.5, 37.5, 52.5 mm	AVX
		3000 VDC/750 VAC	0.022 – 0.82 µF	• Terminals tinned copper 2 or 4 wires	
C4AT	Radial Leads	250 VDC/160 VAC	1.0 – 60 µF	• Switching applications	WIMA,
		400 VDC/250 VAC	1.0 – 40 µF	• Climatic category (IEC 60068-1) 40/85/56	TDK-EPC,
		450 VDC/275 VAC	1.0 – 33 µF	• Pulse rise time (dv/dt) 15 to 148 V/µs	Vishay,
		600 VDC/350 VAC	0.68 – 20 µF	• Pitch (p) p = 27.5, 37.5, 52.5 mm	AVX
		700 VDC/400 VAC	0.47 – 15 µF	• Terminals tinned copper 2 or 4 wires	
		850 VDC/450 VAC	0.22 – 10 µF		
C4BS	Direct Mount	850 VDC/550 VAC	0.47 – 5.0 µF	• Snubber-IGBT applications	WIMA,
		1000 VDC/600 VAC	0.47 – 4.0 µF	• Climatic category (IEC 60068-1) 40/85/56	TDK-EPC,
		1200 VDC/630 VAC	0.33 – 3.3 µF	• Pulse rise time (dv/dt) 469 to 3361 V/µs	Vishay,
		2000 VDC/700 VAC	0.10 – 1.5 µF	• Box Length (L) L = 32 to 57.5 mm	AVX
		3000 VDC/750 VAC	0.047 – 0.82 µF	• Terminals tinned brass lugs	
C4BT	Direct Mount	250 VDC/160 VAC	4.7 – 60 µF	• Switching-IGBT applications	WIMA,
		400 VDC/250 VAC	3.3 – 40 µF	• Climatic category (IEC 60068-1) 40/85/56	TDK-EPC,
		600 VDC/330 VAC	2.5 – 20 µF	• Pulse rise time (dv/dt) 27 to 148 V/µs	Vishay,
		700 VDC/400 VAC	1.5 – 15 µF	• Box Length (L) L = 32 to 57.5 mm	AVX
		850 VDC/450 VAC	1.0 – 10 µF	• Terminals tinned brass lugs	