

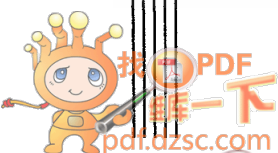
## TRIACS

IT(RMS) Tc=80° C 360° Conduction (Amps)	ITSM (Amps)		I <sup>2</sup> t for Fusing @ 8.3 ms (A <sup>2</sup> sec)	IDRM @ VRRM (mA)	VDRM/VRRM Range (Volts)	VTM T <sub>J</sub> =25°C		ReJC (°C/W)	Junction Temp. Range (°C)	Max Vgr (Volts)	Max Vgd All Modes (Volts)
	50 Hz	60 Hz				ITM (Amps)	VTM (Volts)				
10	104	110	50	.5	200-600	14	1.5	2.5	-40 to 100	3.5	.2
10	90	100	41.5	.5	200-600	14	1.65	2	-40 to 100	3.5	.2
10 Tc=78°C	90	100	41.5	.5	200-600	14	1.65	2.15	-40 to 100	3.5	.2
10 Tc=78°C	90	100	41.5	.5	200-600	14	1.65	2.15	-40 to 100	3.5	.2
10 Tc=76°C	90	100	41.5	.5	200-600	14	1.65	2.30	-40 to 100	3.5	.2
10 Tc=78°C	90	100	41.5	.5	200-600	14	1.65	2.15	-40 to 100	3.5	.2
10	90	100	41.5	.5	200-600	14	1.65	2	-40 to 100	3.5	.2
12 Tc=98°C	109	120	60	2	200-600	20	1.6	1.8	-40 to 125	1.5 x	.2
12 Tc=84°C	109	120	60	2	200-600	20	1.6	2.7	-40 to 125	1.5 x	.2
12	110	120	60	.5	200-600	17	1.48	2.05	-40 to 100	3.5	.2
12 Tc=75°C	110	120	60	.5	200-600	17	1.65	2	-40 to 100	3.5	.2
15	110	120	60	.5	200-600	21	1.52	1.95	-40 to 100	3.5	.2
15	110	120	60	.5	200-600	21	1.52	2	-40 to 100	3.5	.2
15 Tc=86°C	90	100	41.5	.5	200-600	21	1.65	2	-40 to 100	3.5	.2
15 Tc=83°C	90	100	41.5	.5	200-600	21	1.65	2.15	-40 to 100	3.5	.2
15 Tc=83°C	90	100	41.5	.5	200-600	21	1.65	2.15	-40 to 100	3.5	.2
15	90	100	41.5	.5	200-600	21	1.65	2.3	-40 to 100	3.5	.2
15 Tc=83°C	90	100	41.5	.5	200-600	21	1.65	2.15	-40 to 100	3.5	.2
15 Tc=86°C	90	100	41.5	.5	200-600	21	1.65	2	-40 to 100	3.5	.2
16 Tc=100°C	155	170	121	2	200-600	25	1.5	1.4	-40 to 125	1.5 x	.2
16 Tc=79°C	155	170	121	2	200-600	25	1.5	2.5	-40 to 125	1.5 x	.2

\* = Isolated Tab

° = Tentative Specifications

x = 25°C Value



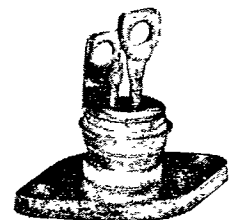
Critical Rate of Rise of Off-State Voltage (Min) $dv/dt$ (V/ $\mu$ sec)	$dv/dt(c)$ (V/ $\mu$ sec)	Holding and Latching Current (Max) $T_{J(Min)}$ to $T_{J(Max)}$		Gate Current		PACKAGE INFORMATION		
		DC Holding Current (mA)	DC Latching Current (mA)	IGT Max (mA) @ $T_{J(Min)}$	@ $T_J=25^\circ C$	STYLE	Outline	TYPE NO.
100	4	50-100	100-400	80	50	Power Pak Isolated Tab	TO-220AB	SC147*
100	4	50-100	100-400	80	50	Non-Isolated Stud	—	SC245
100	4	50-100	100-400	80	50	Isolated Stud With Press on MT2 Terminal	—	SC245-2
100	4	50-100	100-400	80	50	Isolated Stud With Solder Ring MT2 Terminal	—	SC245-3
100	4	50-100	100-400	80	50	Isolated TO-3 Flange	—	SC245-4
100	4	50-100	100-400	80	50	Non-Isolated TO-3 Flange	—	SC245-5
100	4	50-100	100-400	80	50	Press Fit	—	SC246
—	6-10	38-200 Typical	—	180 Typical	45 Typical	Flat Pak	TO-220	BCR12CM
—	6-10	38-200 Typical	—	180 Typical	45 Typical	Flat Pak	TO-220	BCR12DM
100	4	50-100	100-400	80	50	Power Pak Isolated Tab	TO-220AB	SC148*
100	4	50-100	100-400	80	50	Power Pak Non-Isolated Tab	TO-220AB	SC149
100	4	50-100	100-400	80	50	Power Pak Isolated Tab	TO-220AB	SC150*
100	4	50-100	100-400	80	50	Power Pak Non-Isolated Tab	TO-220AB	SC151
100	4	50-100	100-400	80	50	Non-Isolated Stud	—	SC250
100	4	50-100	100-400	80	50	Isolated Stud With Press on MT2 Terminal	—	SC250-2
100	4	50-100	100-400	80	50	Isolated Stud With Solder Ring MT2 Terminal	—	SC250-3
100	4	50-100	100-400	80	50	Isolated TO-3 Flange	—	SC250-4
100	4	50-100	100-400	80	50	Non-Isolated TO-3 Flange	—	SC250-5
100	4	50-100	100-400	80	50	Press Fit	—	SC251
—	6-10	38-200 Typical	—	80	50	Flat Pak	TO-220	°BCR16CM
—	6-10	38-200 Typical	—	80 Typical	50 Typical	Flat Pak	TO-220	°BCR16DM



Isolated stud with press-on anode (MTZ) terminal



Isolated stud with solder ring anode (MTZ) terminal



Isolated JEDEC TO-3 flange



**TRIACS**

**Glass Axial Leaded— Consult Factory**

**Isolated Plastic with Fast-Ons— Consult Factory**

**Metric Stud— Consult Factory**

**M8 × 1.25**

**M12 × 1.5**

**M20 × 1.5**

**M24 × 1.5**

**Press Pak— Consult Factory**

**14.5mm × 43mm**

**14.5mm × 50 mm**

**Surface Mount— Consult Factory**

**MP-3**

**SOT-89**





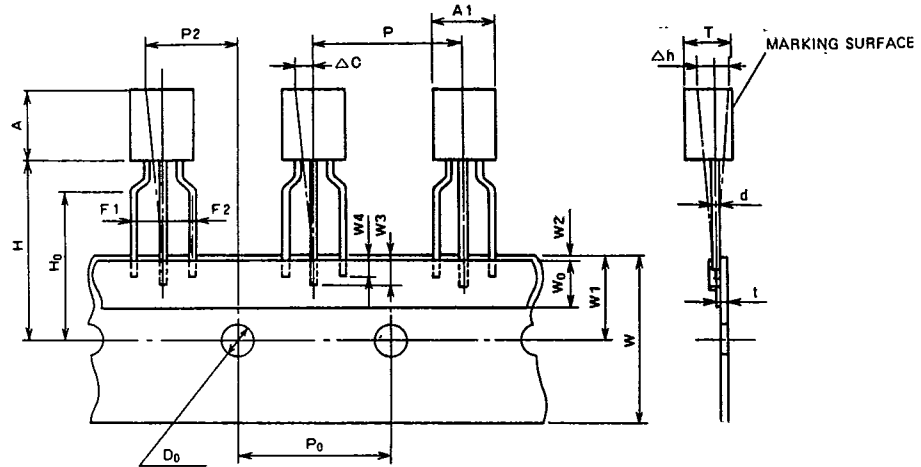
Powerex, Inc., Hillis Street, Youngwood, Pennsylvania 15697 (412) 925-7272  
 Powerex Europe, S.A., 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

**Taping**

**STANDARD SPECIFICATIONS FOR TAPING OF MOLDED PACKAGE THYRISTORS AND TRIACS**

TO-92 Package

Thyristor  
 CR02AM, CR03AM, CR04AM  
 Triac  
 BCR1AM



Taping dimensions

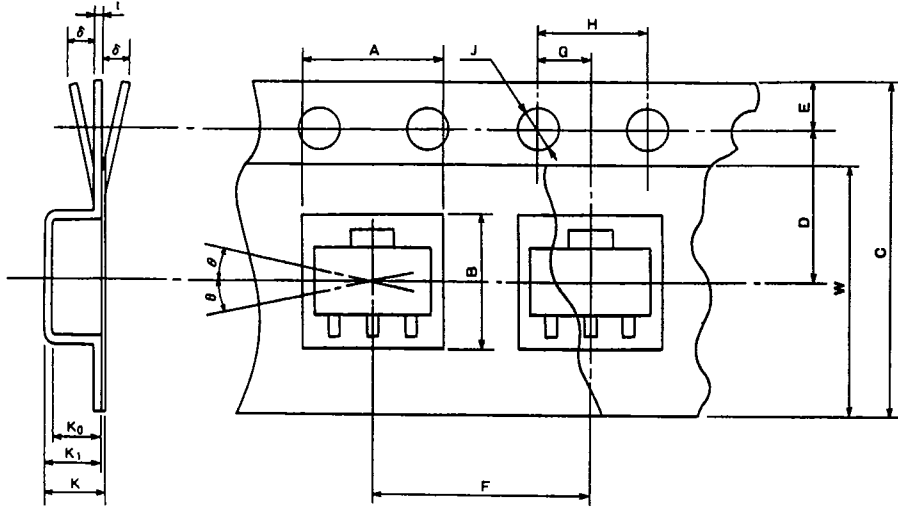
Description of symbol	Symbol	Dimensions (Unit:mm)	Remark
Product width	A1	5.0 MAX	
Product height	A	5.0 MAX	
Product thickness	T	3.7 MAX	
Lead wire diameter	d	0.6 MAX	
Sticker lead wire length (1)	W3	2.5 MIN	
Sticker lead wire length (2)	W4	2.0 MIN	
Pitch between products	P	12.7 ± 1.0	
Feed hole pitch	P <sub>0</sub>	12.7 ± 0.3	The cumulative pitch error is ± 1mm per 20 pitches.
Feed hole deviation (1)	P2	6.35 ± 1.3	
Distance between lead wires	F1, F2	2.5 ± 0.4	
Defective product (1)	Δh	0 ± 2.0	
Tape width	W	18.0 ± $\begin{smallmatrix} 1.0 \\ 0.5 \end{smallmatrix}$	
Sticker tape width	W <sub>0</sub>	6.0 ± 0.5	
Feed hole deviation (2)	W1	9.0 ± 0.5	
Sticker tape deviation	W2	0.5 MAX	
Position of product bottom surface	H	17.5 MIN	
Lynch height of lead wire	H <sub>0</sub>	16.0 ± 0.5	
Feed hole diameter	D <sub>0</sub>	4.0 ± 0.2	
Tape thickness	t	0.7 ± 0.2	
Defective product (2)	ΔC	0 ± 1.0	





Powerex, Inc., Hillis Street, Youngwood, Pennsylvania 15697 (412) 925-7272  
 Powerex Europe, S.A., 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

Powerex Semiconductor Data Book  
 Taping



SOT-89 Package

Thyristor  
 CR08AS

Taping dimensions

Description of symbol		Symbol	Dimensions/angles Unit:mm	Remark
Parts insertion	Height	A	$5.0 \pm 0.1$	Cross-section of the surface 0.5mm above the inner bottom
	Width	B	$4.6 \pm 0.1$	Cross-section of the surface 0.5mm above the inner bottom
Concave square hole	Depth	K <sub>0</sub>	$1.8 \pm 0.1$	Inner space
	Pitch	F	$8.0 \pm 0.1$	Cumulative error +0.1/-0.3 MAX/10 pitches
Round feed hole	Diameter	J	$\phi 1.5 \pm 0.05$	
	Pitch	H	$4.0 \pm 0.1$	Cumulative error +0.1/-0.3 MAX/10 pitches
	Position	E	$1.5 \pm 0.1$	Distance between the tape edge and the hole center
Distance between center lines	Vertical	G	$2.0 \pm 0.5$	Center line of concave square hole and round feed hole
	Horizontal	D	$5.65 \pm 0.05$	Center line of concave square hole and round feed hole
Cover tape	Width	W	$9.5 + 0.3/-0$	Thickness: 0.1 MAX
Carrier tape	Width	C	$12 \pm 0.2$	Warp $\leq 0.3$ MAX
	Thickness	t	$0.3 \pm 0.05$	
	Package hole depth	K <sub>1</sub>	$2.1 \pm 0.1$	
Device	Package dimensions	—	—	As shown in (e)
	Inclination	$\theta$	30° MAX.	
Total Thickness		K	$2.3 \pm 0.1$	Total thickness including cover and carrier tapes

