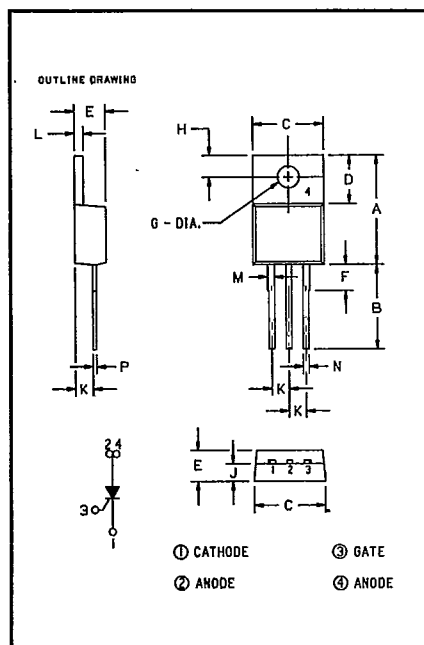


POWEREX**CR3JM**

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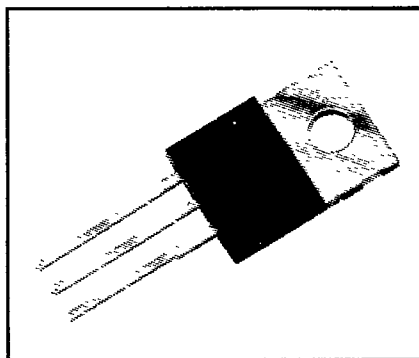
Powerex, Inc., Hillis Street, Youngwood, Pennsylvania 15697 (412) 925-7272

Powerex Europe, S.A., 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

**Inverter SCR
for Strobe Flasher
Applications****0.8 Amperes/400 Volts**

**400 Volts, CR3JM
Conforms to TO-220
Outline Drawing**

Dimension	Inches	Millimeters
A	.63 Max.	16 Max.
B	.49 Min.	12.5 Min.
C	.41	10.5
D	.28	7
E	.18	4.5
F	.15 Max.	3.8 Max.
G	.142 ± .008 Dia.	3.6 ± 0.2 Dia.
H	.125 ± .008	3.2 ± 0.2
J	.102 ± .016	2.6 ± 0.4
K	.10	2.5
L	.051	1.3
M	.039	1.0
N	.031	0.8
P	.020	0.5



**CR3JM
Inverter SCR for Pulse Applications
0.8 Amperes/400 Volts**

Description

The Powerex CR3JM is a glass passivated and molded silicone plastic thyristor for use in automatic strobe flashers.

Features:

- ☐ Large Pulse
- ☐ Glass Passivation
- ☐ Short Turn-Off Time
- ☐ Easy Application For Printed Circuits

Applications:

- ☐ Strobe Flasher

Ordering Information

Example: Select the complete 6 digit part number you desire from the table — i.e. CR3JM-8 is a 400 Volt, 0.8 Ampere Average SCR.

Type	Voltage V _{DRM} /V _{RRM}	Code	Current Rating, I _{T(av)} Amperes (0.8)
CR3JM	400	-8	—



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CR3JM**Inverter SCR for Strobe Flasher Applications**

0.8 Amperes/400 Volts

Absolute Maximum Ratings, ($T_a=25^\circ\text{C}$ unless otherwise specified)

Ratings	Symbol	CR3JM-8	Units
Repetitive Peak Reverse Voltage	V_{RRM}	400	Volts
Non-Repetitive Peak Reverse Voltage	V_{RSM}	480	Volts
Repetitive Peak Off-State Voltage	V_{ORM}	400	Volts
Non-Repetitive Peak Off-State Voltage	V_{DJM}	480	Volts
Average On-State Current (Nominal, See Graphs) $T_a=37^\circ\text{C}$	$I_{T(AV)}$	0.8	Amperes
Repetitive Peak On-State Current	I_{TRM}	240	Amperes
Peak Gate Power Dissipation	P_{GM}	3	Watts
Average Gate Power Dissipation	$P_{G(AV)}$	0.3	Watts
Peak Forward Gate Voltage	V_{FGM}	6	Volts
Peak Forward Gate Current	I_{FGM}	1	Amperes
Peak Reverse Gate Voltage	V_{RGM}	6	Volts
Storage Temperature	T_{stg}	-40 to 125	$^\circ\text{C}$
Operating Temperature	T_j	-40 to 125	$^\circ\text{C}$
Weight	—	2	Grams

Electrical Characteristics

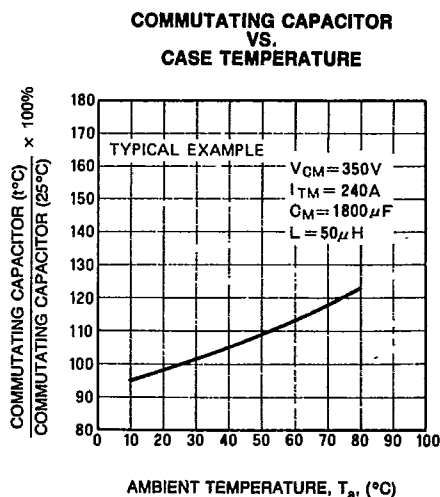
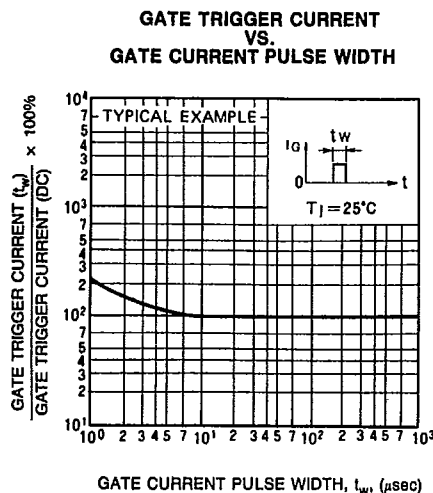
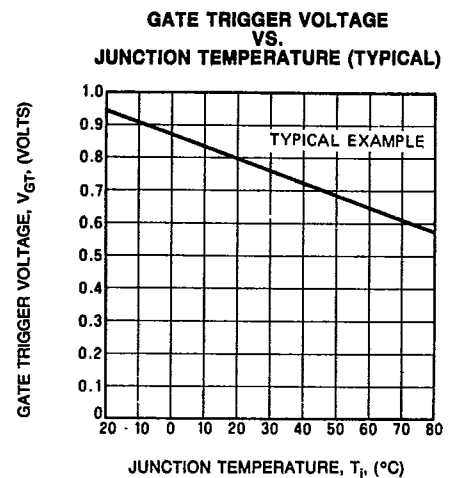
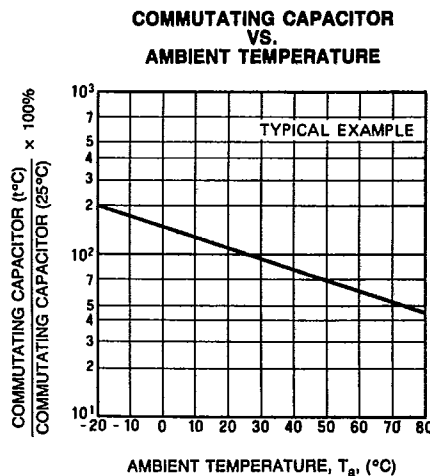
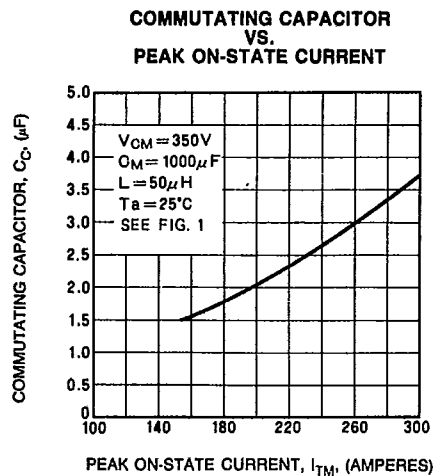
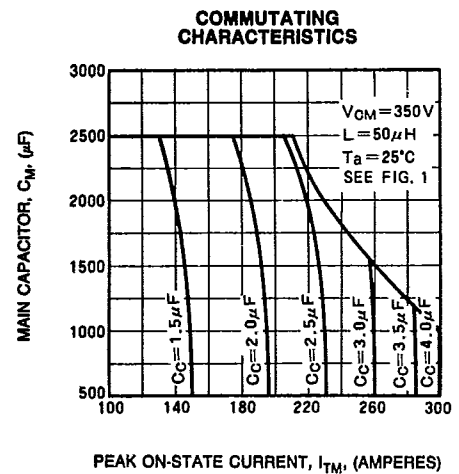
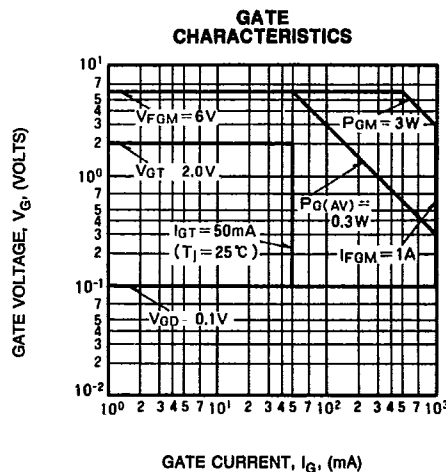
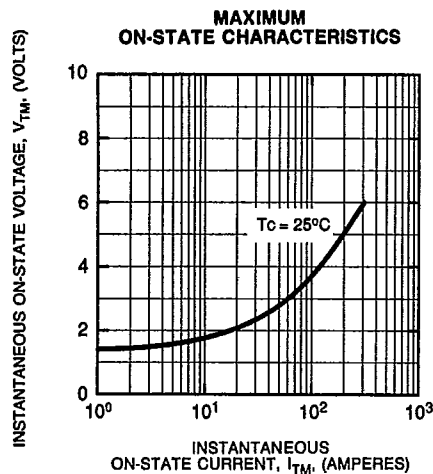
Characteristics	Symbol	Test Conditions	CR3JM-8			Units
			Min.	Typ.	Max.	
Voltage—Blocking State						
Forward Leakage, Peak	I_{DRM}	$T_J = 25^\circ\text{C}$, $V_{\text{DRM}} = \text{Rated}$	—	—	0.1	mA
Reverse Leakage, Peak	I_{RRM}	$T_J = 25^\circ\text{C}$, $V_{\text{RRM}} = \text{Rated}$	—	—	0.1	mA
Current—Conducting State						
Peak On-State Voltage	V_{TM}	$T_c = 25^\circ\text{C}$, $I_{\text{TM}} = 3\text{ A Peak}$	—	—	1.8	Volts
Gate — Parameters						
Gate Current to Trigger	I_{GT}	$V_D = 6\text{V}$, $R_L = 6\Omega$, $T_J = 25^\circ\text{C}$	—	—	50	mA
Gate Voltage to Trigger	V_{GT}	$V_D = 6\text{V}$, $R_L = 6\Omega$, $T_J = 25^\circ\text{C}$	—	—	2	Volts
Non-Triggering Gate Voltage	V_{GD}	$V_D = \frac{1}{2} V_{\text{DRM}}$, $T_J = 125^\circ\text{C}$	0.1	—	—	Volts
Commutating Capacitor	C_C	$C_M = 1800\mu\text{F}$, $V_{\text{CM}} = 350\text{V}$, $I_{\text{TM}} = 240\text{A}$, $L = 50\mu\text{H}$, $V_{\text{GK}} = -6\text{V}$, $T_a = 25^\circ\text{C}$	—	—	2.8	μF



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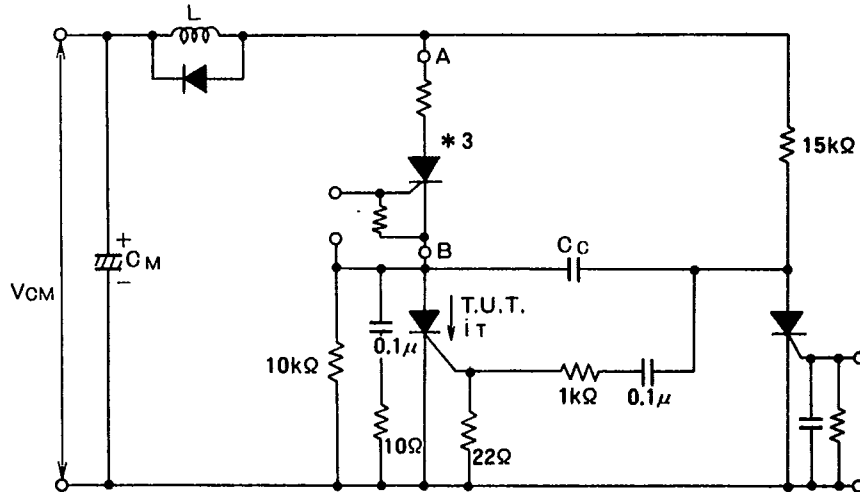
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CR3JM

Inverter SCR for Strobe Flasher Applications

0.8 Amperes/400 Volts

**TEST CIRCUIT FOR
COMMUTATING CAPACITOR**



* 3 The circuit between A-B is a substitute for Xenon flash tube.