

CR3EM

LOW POWER USE
NON-INSULATED TYPE, GLASS PASSIVATION TYPE

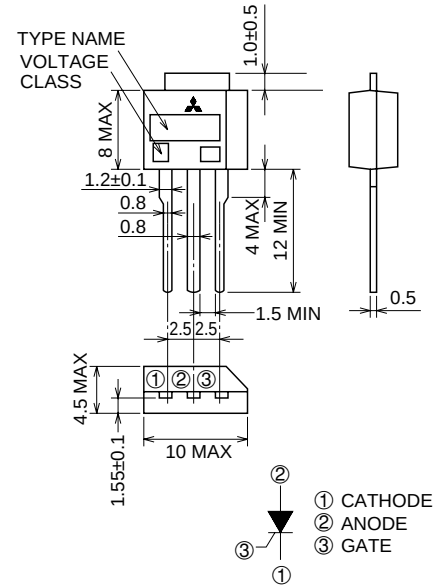
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- I_T (AV) 0.6A
- V_{DRM} 400V
- I_{GT} 30mA

OUTLINE DRAWING

Dimensions
in mm



APPLICATION

Automatic strobe flasher

MAXIMUM RATINGS

Symbol	Parameter	Voltage class	Unit
		8	
V_{RRM}	Repetitive peak reverse voltage	400	V
V_{RSM}	Non-repetitive peak reverse voltage	500	V
V_R (DC)	DC reverse voltage	320	V
V_{DRM}	Repetitive peak off-state voltage	400	V
V_{DSM}	Non-repetitive peak off-state voltage	600	V

Symbol	Parameter	Conditions	Ratings	Unit
I_T (RMS)	RMS on-state current		0.94	A
I_T (AV)	Average on-state current	Commercial frequency, sine half wave, 180° conduction, $T_a=43^\circ\text{C}$	0.6	A
I_{TSM}	Surge on-state current	60Hz sine half wave 1 full cycle, peak value, non-repetitive	70	A
I^2_t	I^2_t for fusing	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current	20	A ² s
PGM	Peak gate power dissipation		2.0	W
PG (AV)	Average gate power dissipation		0.2	W
V_{FGM}	Peak gate forward voltage		6	V
V_{RGM}	Peak gate reverse voltage		6	V
I_{FGM}	Peak gate forward current		1	A
T_j	Junction temperature		-40 ~ +125	°C
T_{stg}	Storage temperature		-40 ~ +125	°C
—	Weight	Typical value	1.1	g

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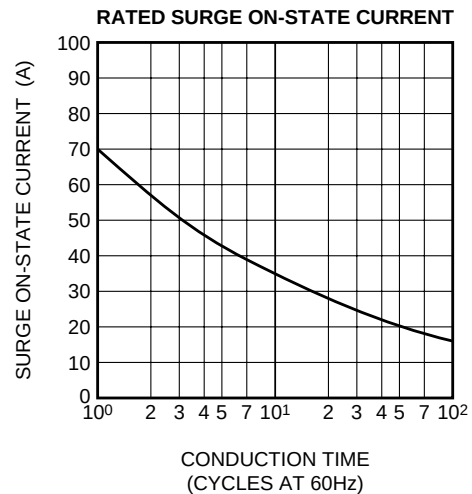
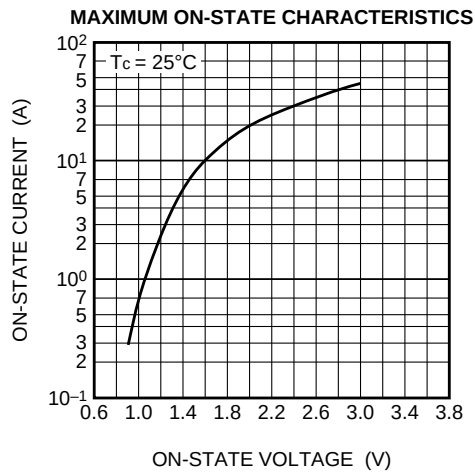
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ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IRRM	Repetitive peak reverse current	$T_j=125^{\circ}\text{C}$, V_{RRM} applied	—	—	0.1	mA
IDRM	Repetitive peak off-state current	$T_j=125^{\circ}\text{C}$, V_{DRM} applied	—	—	0.1	mA
V_{TM}	On-state voltage	$T_c=25^{\circ}\text{C}$, $I_{TM}=10\text{A}$, instantaneous value	—	—	1.6	V
V_{GT}	Gate trigger voltage	$T_j=25^{\circ}\text{C}$, $V_D=6\text{V}$, $I_T=0.5\text{A}$	—	—	1.5	V
V_{GD}	Gate non-trigger voltage	$T_j=125^{\circ}\text{C}$, $V_D=1/2V_{DRM}$	0.2	—	—	V
I_{GT}	Gate trigger current	$T_j=25^{\circ}\text{C}$, $V_D=6\text{V}$, $I_T=0.5\text{A}$	—	—	30	mA
I_H	Holding current	$T_j=25^{\circ}\text{C}$, $V_D=12\text{V}$	25	45	—	mA
$R_{th(j-a)}$	Thermal resistance	Junction to ambient	—	—	120	$^{\circ}\text{C/W}$

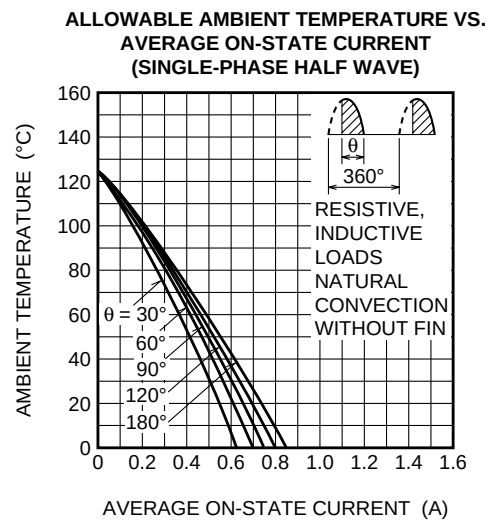
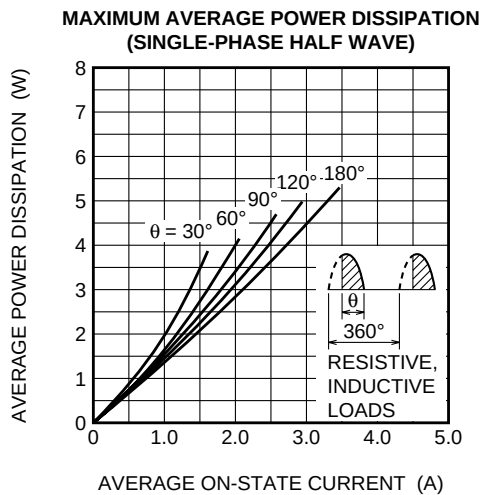
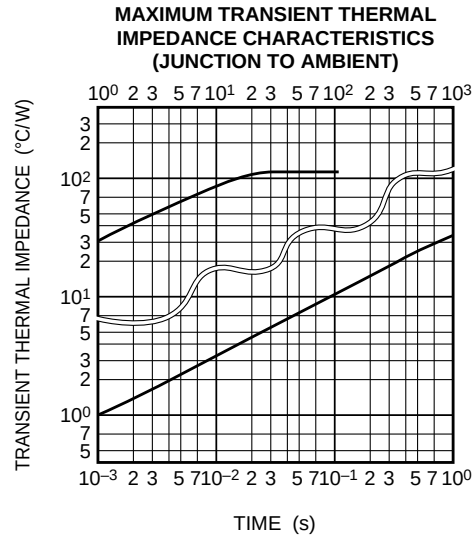
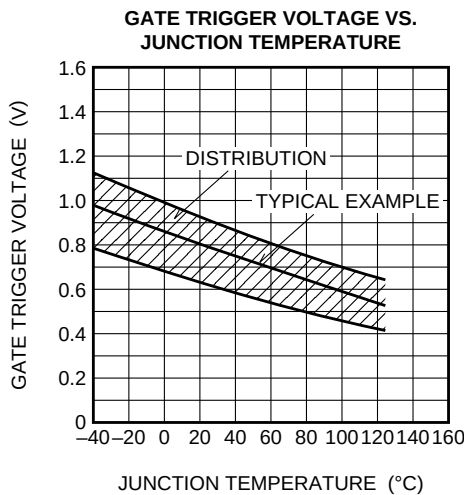
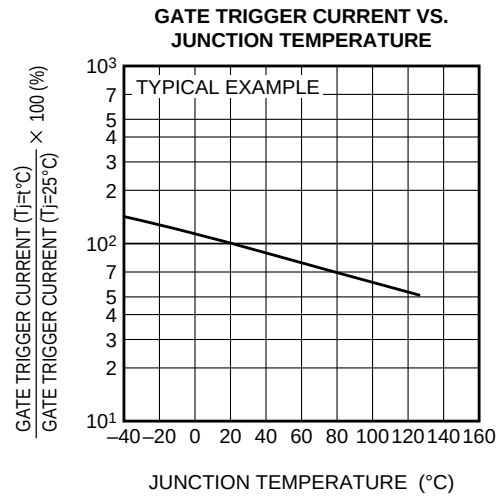
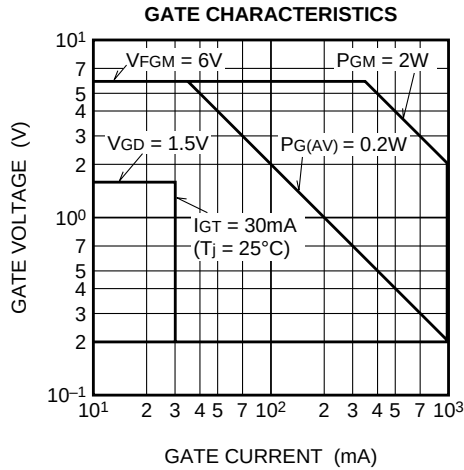
PERFORMANCE CURVES



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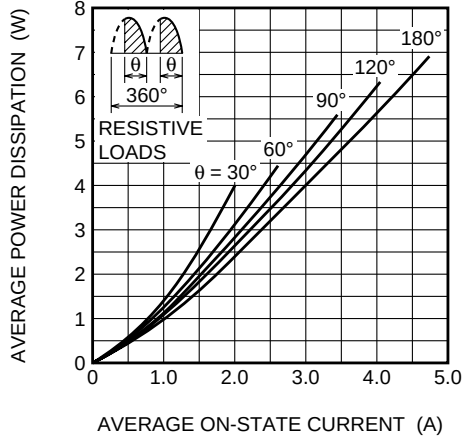


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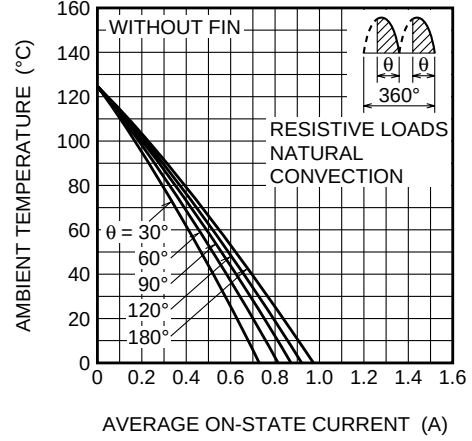
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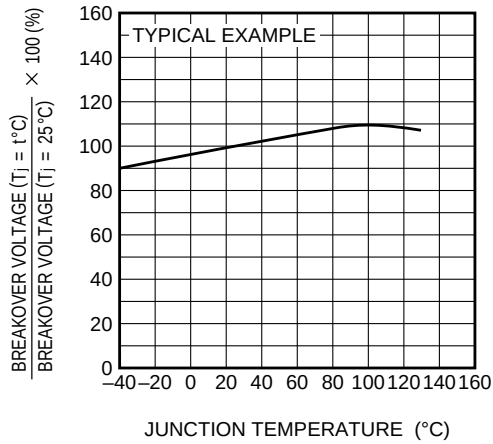
MAXIMUM AVERAGE POWER DISSIPATION
(SINGLE-PHASE FULL WAVE)



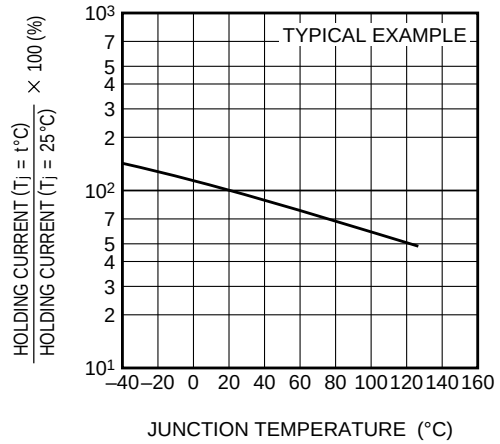
ALLOWABLE AMBIENT TEMPERATURE VS.
AVERAGE ON-STATE CURRENT
(SINGLE-PHASE FULL WAVE)



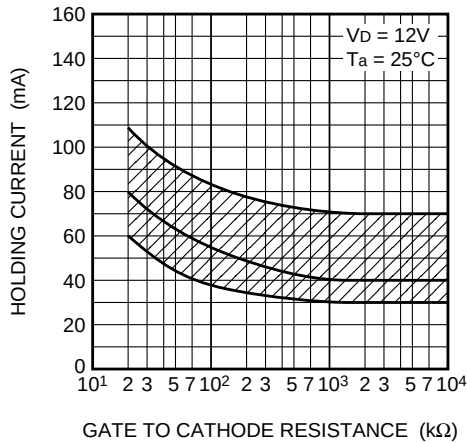
BREAKOVER VOLTAGE VS.
JUNCTION TEMPERATURE



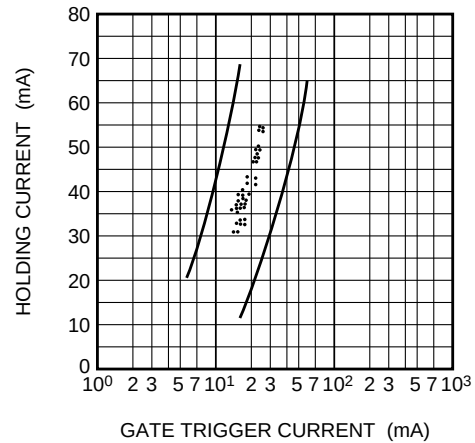
HOLDING CURRENT VS.
JUNCTION TEMPERATURE



HOLDING CURRENT VS.
GATE TO CATHODE RESISTANCE



HOLDING CURRENT VS.
GATE TRIGGER CURRENT

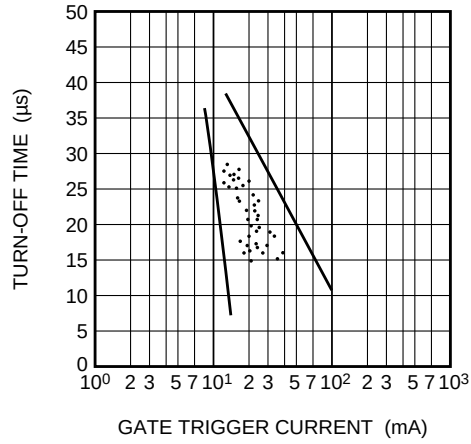


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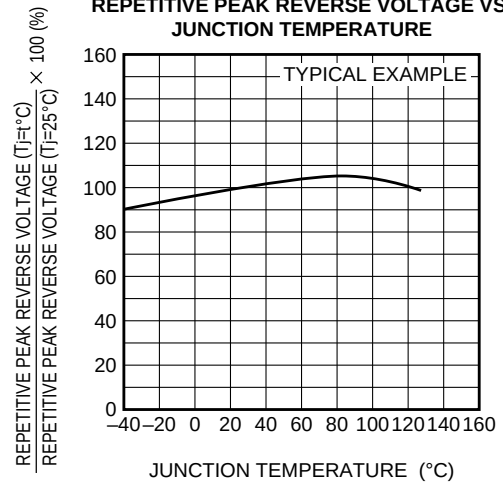
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TURN-OFF TIME VS.
GATE TRIGGER CURRENT



REPETITIVE PEAK REVERSE VOLTAGE VS.
JUNCTION TEMPERATURE



GATE TRIGGER CURRENT VS.
GATE CURRENT PULSE WIDTH

