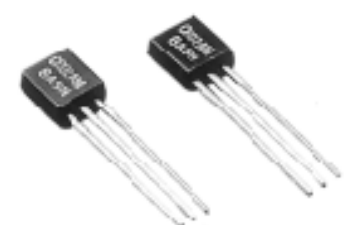


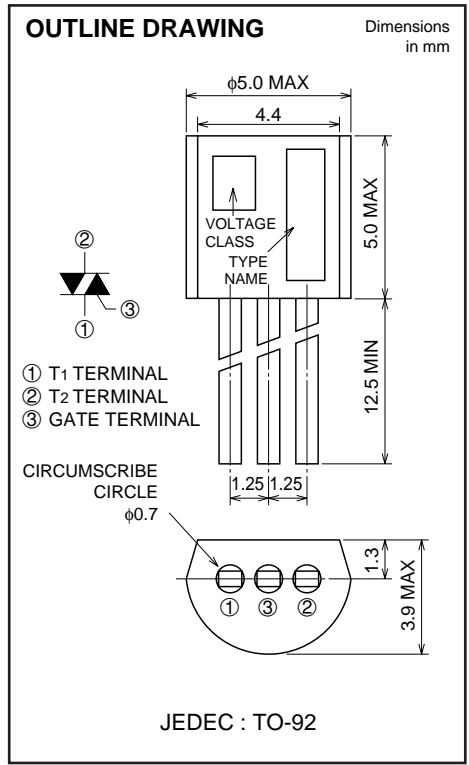
# CR02AM-8A

LOW POWER USE  
GLASS PASSIVATION TYPE

**CR02AM-8A**



- $I_T$  (AV) ..... **0.3A**
- $V_{DRM}$  ..... **400V**
- $I_{GT}$  ..... **100 $\mu$ A**



## APPLICATION

Strobe flasher

## MAXIMUM RATINGS

Symbol	Parameter	Voltage class		Unit
			8	
VRRM	Repetitive peak reverse voltage		400	V
VRSM	Non-repetitive peak reverse voltage		500	V
VR (DC)	DC reverse voltage		320	V
VDRM	Repetitive peak off-state voltage	*1	400	V
VD (DC)	DC off-state voltage	*1	320	V

Symbol	Parameter	Conditions	Ratings	Unit
$I_T$ (RMS)	RMS on-state current		0.47	A
$I_T$ (AV)	Average on-state current	Commercial frequency, sine half wave, 180° conduction, $T_a=30^\circ\text{C}$	0.3	A
$I_{TSM}$	Surge on-state current	60Hz sine half wave 1 full cycle, peak value, non-repetitive	10	A
$I^2_t$	$I^2_t$ for fusing	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current	0.4	A <sup>2</sup> s
PGM	Peak gate power dissipation		0.1	W
PG (AV)	Average gate power dissipation		0.01	W
VFGM	Peak gate forward voltage		6	V
VRGM	Peak gate reverse voltage		6	V
IFGM	Peak gate forward current		0.1	A
$T_j$	Junction temperature		-40 ~ +125	°C
$T_{stg}$	Storage temperature		-40 ~ +125	°C
—	Weight	Typical value	0.23	g

\*1. With gate to cathode resistance  $R_{GK}=1k\Omega$ .

# CR02AM-8A

LOW POWER USE  
GLASS PASSIVATION TYPE

## ELECTRICAL CHARACTERISTICS

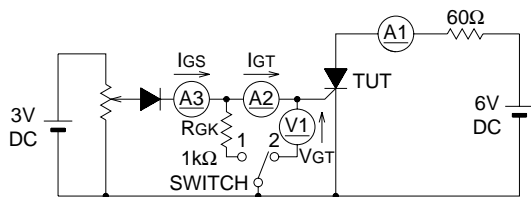
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IRRM	Repetitive peak reverse current	T <sub>j</sub> =125°C, V <sub>RRM</sub> applied	—	—	0.1	mA
IDRM	Repetitive peak off-state current	T <sub>j</sub> =125°C, V <sub>DRM</sub> applied, R <sub>GK</sub> =1kΩ	—	—	0.1	mA
V <sub>TM</sub>	On-state voltage	T <sub>c</sub> =25°C, I <sub>TM</sub> =0.6A, instantaneous value	—	—	1.6	V
V <sub>GT</sub>	Gate trigger voltage	T <sub>j</sub> =25°C, V <sub>D</sub> =6V, I <sub>T</sub> =0.1A *3	—	—	0.8	V
V <sub>GD</sub>	Gate non-trigger voltage	T <sub>j</sub> =125°C, V <sub>D</sub> =1/2V <sub>DRM</sub> , R <sub>GK</sub> =1kΩ	0.2	—	—	V
I <sub>GT</sub>	Gate trigger current	T <sub>j</sub> =25°C, V <sub>D</sub> =6V, I <sub>T</sub> =0.1A *3	1	—	100*2	μA
I <sub>H</sub>	Holding current	T <sub>j</sub> =25°C, V <sub>D</sub> =12V, R <sub>GK</sub> =1Ω	—	—	3	mA
R <sub>th(j-a)</sub>	Thermal resistance	Junction to ambient	—	—	180	°C/W

\*2. If special values of I<sub>GT</sub> are required, choose at least two items from those listed in the table below. (Example: AB, BC)

Item	A	B	C
I <sub>GT</sub> (μA)	1 ~ 30	20 ~ 50	40 ~ 100

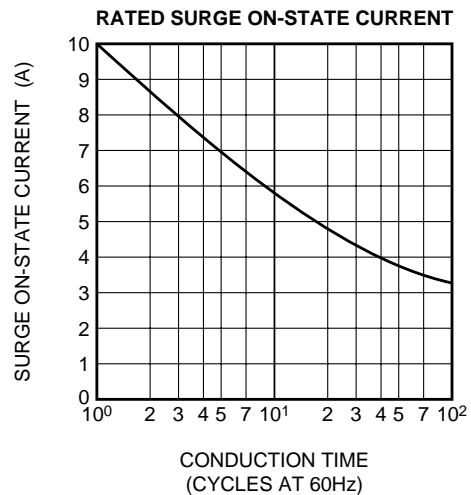
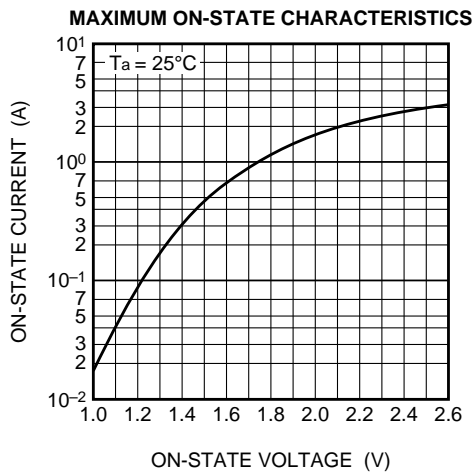
The above values do not include the current flowing through the 1kΩ resistance between the gate and cathode.

\*3. I<sub>GT</sub>, V<sub>GT</sub> measurement circuit.



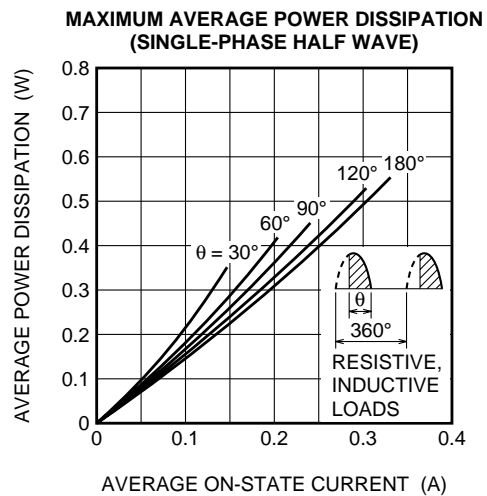
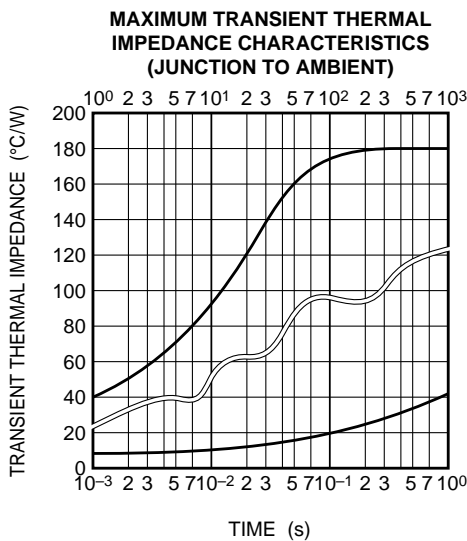
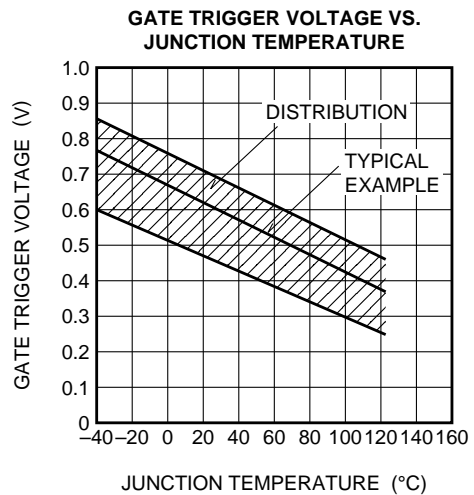
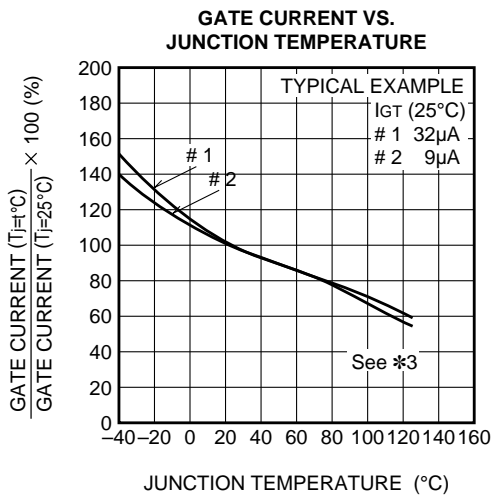
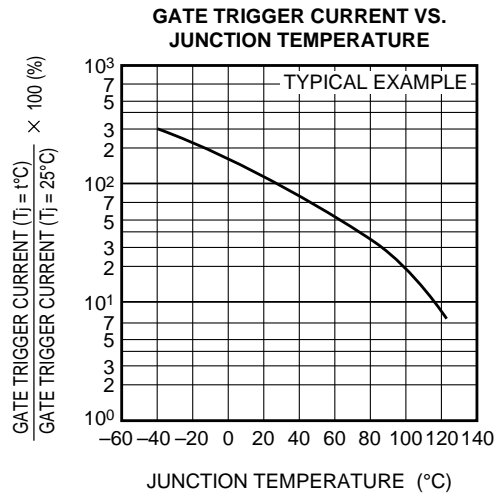
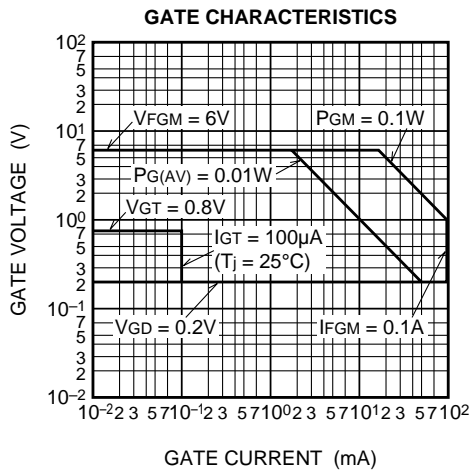
SWITCH 1 : I<sub>GT</sub> measurement  
SWITCH 2 : V<sub>GT</sub> measurement  
(Inner resistance of voltage meter is about 1kΩ)

## PERFORMANCE CURVES



# CR02AM-8A

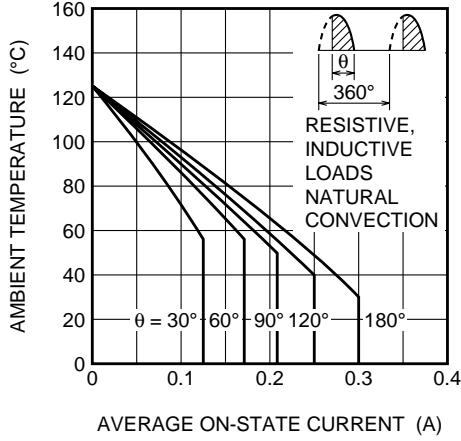
LOW POWER USE  
GLASS PASSIVATION TYPE



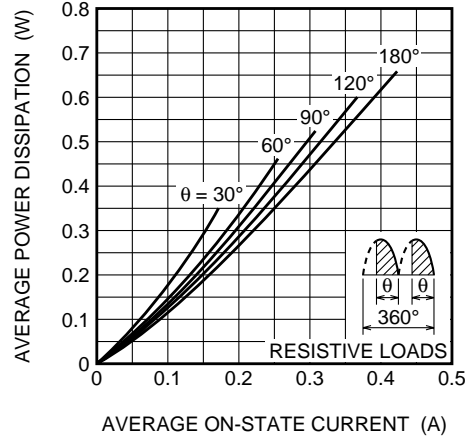
# CR02AM-8A

LOW POWER USE  
GLASS PASSIVATION TYPE

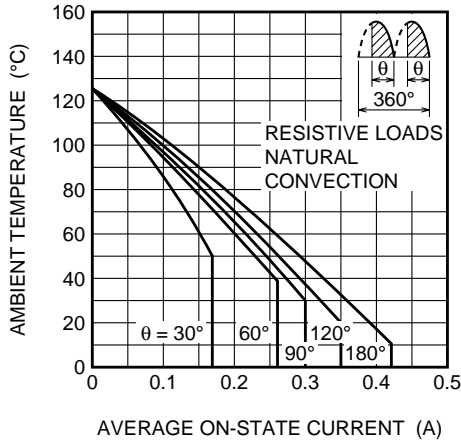
**ALLOWABLE AMBIENT TEMPERATURE VS. AVERAGE ON-STATE CURRENT (SINGLE-PHASE HALF WAVE)**



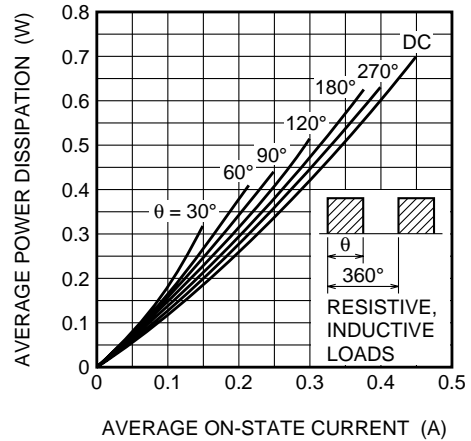
**MAXIMUM AVERAGE POWER DISSIPATION (SINGLE-PHASE FULL WAVE)**



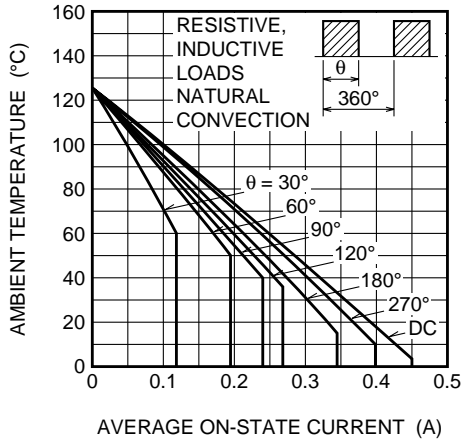
**ALLOWABLE AMBIENT TEMPERATURE VS. AVERAGE ON-STATE CURRENT (SINGLE-PHASE FULL WAVE)**



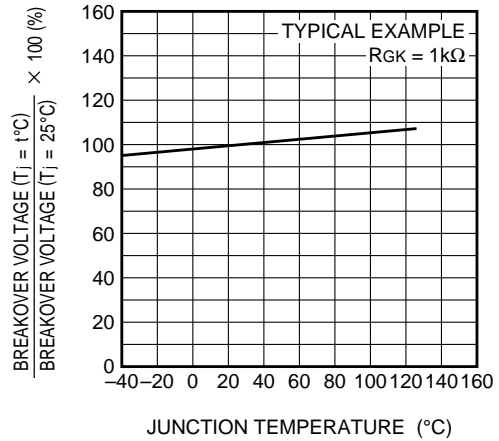
**MAXIMUM AVERAGE POWER DISSIPATION (RECTANGULAR WAVE)**



**ALLOWABLE AMBIENT TEMPERATURE VS. AVERAGE ON-STATE CURRENT (RECTANGULAR WAVE)**



**BREAKOVER VOLTAGE VS. JUNCTION TEMPERATURE**



# CR02AM-8A

LOW POWER USE  
GLASS PASSIVATION TYPE

