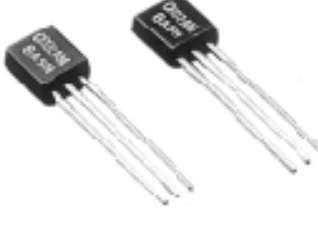


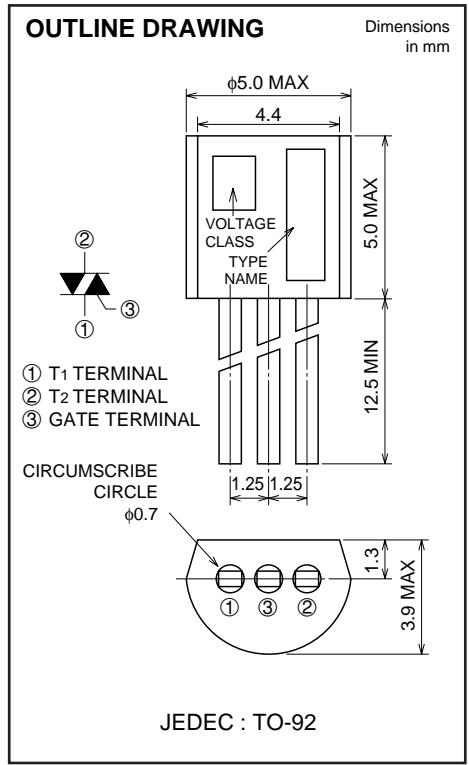
CR02AM-8A

LOW POWER USE
GLASS PASSIVATION TYPE

CR02AM-8A



- $I_T (AV)$ **0.3A**
- V_{DRM} **400V**
- I_{GT} **100 μ 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 ² 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 $R_{GK}=1k\Omega$.

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LOW POWER USE
GLASS PASSIVATION TYPE

ELECTRICAL CHARACTERISTICS

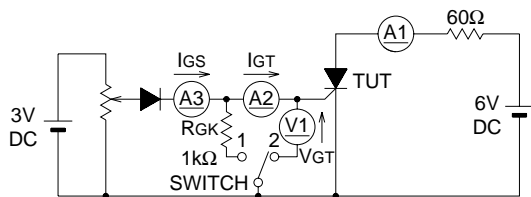
| Symbol | Parameter | Test conditions | Limits | | | Unit |
|----------------------|-----------------------------------|---|--------|------|-------|--------------------|
| | | | Min. | Typ. | Max. | |
| IRRM | Repetitive peak reverse current | $T_j=125^\circ\text{C}$, V_{RRM} applied | — | — | 0.1 | mA |
| IDRM | Repetitive peak off-state current | $T_j=125^\circ\text{C}$, V_{DRM} applied, $R_{GK}=1\text{k}\Omega$ | — | — | 0.1 | mA |
| V _{TM} | On-state voltage | $T_c=25^\circ\text{C}$, $I_{TM}=0.6\text{A}$, instantaneous value | — | — | 1.6 | V |
| V _{GT} | Gate trigger voltage | $T_j=25^\circ\text{C}$, $V_D=6\text{V}$, $I_T=0.1\text{A}$ *3 | — | — | 0.8 | V |
| V _{GD} | Gate non-trigger voltage | $T_j=125^\circ\text{C}$, $V_D=1/2V_{DRM}$, $R_{GK}=1\text{k}\Omega$ | 0.2 | — | — | V |
| I _{GT} | Gate trigger current | $T_j=25^\circ\text{C}$, $V_D=6\text{V}$, $I_T=0.1\text{A}$ *3 | 1 | — | 100*2 | μA |
| I _H | Holding current | $T_j=25^\circ\text{C}$, $V_D=12\text{V}$, $R_{GK}=1\Omega$ | — | — | 3 | mA |
| R _{th(j-a)} | Thermal resistance | Junction to ambient | — | — | 180 | $^\circ\text{C/W}$ |

*2. If special values of I_{GT} are required, choose at least two items from those listed in the table below. (Example: AB, BC)

| Item | A | B | C |
|-----------------------------------|--------|---------|----------|
| I _{GT} (μA) | 1 ~ 30 | 20 ~ 50 | 40 ~ 100 |

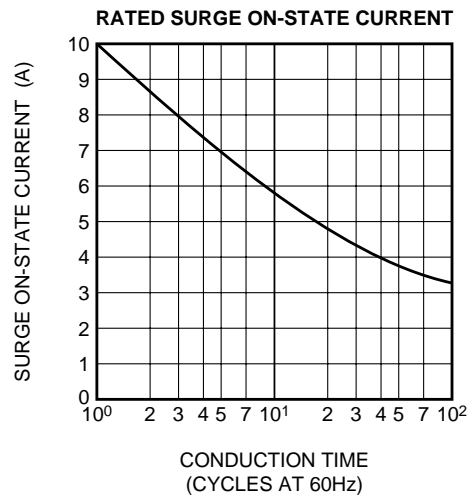
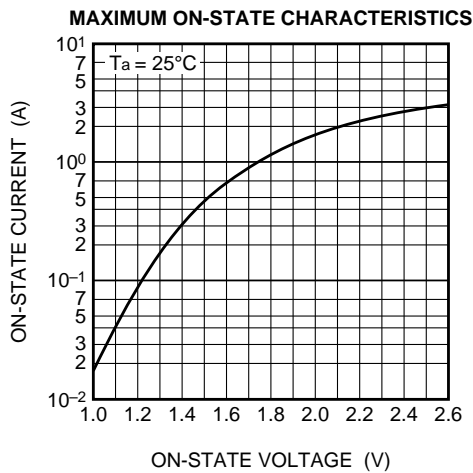
The above values do not include the current flowing through the 1k Ω resistance between the gate and cathode.

*3. I_{GT}, V_{GT} measurement circuit.



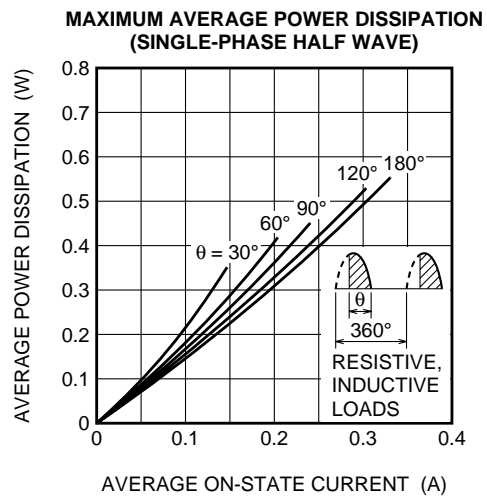
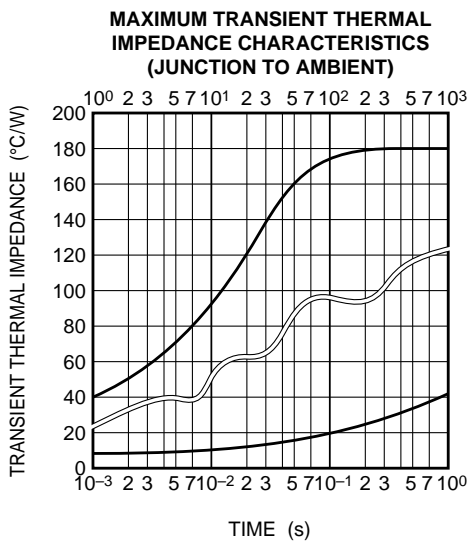
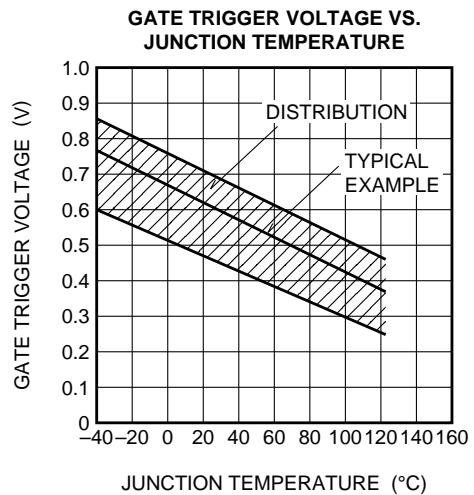
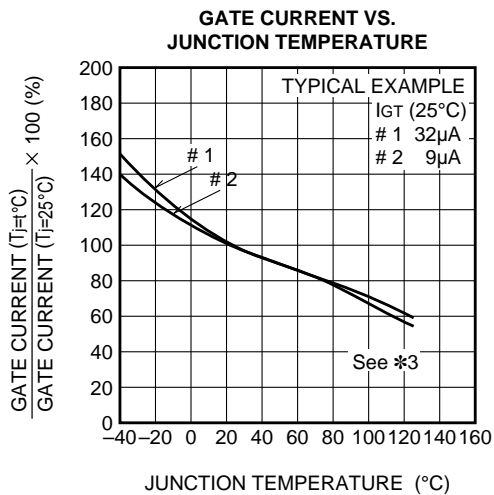
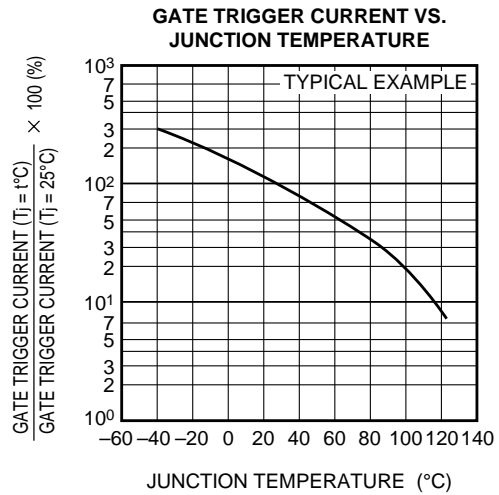
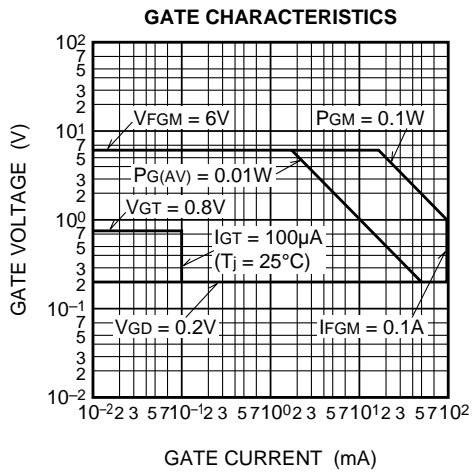
SWITCH 1 : I_{GT} measurement
SWITCH 2 : V_{GT} measurement
(Inner resistance of voltage meter is about 1k Ω)

PERFORMANCE CURVES



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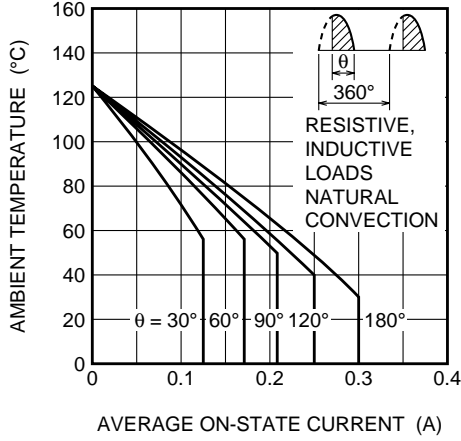
LOW POWER USE
GLASS PASSIVATION TYPE



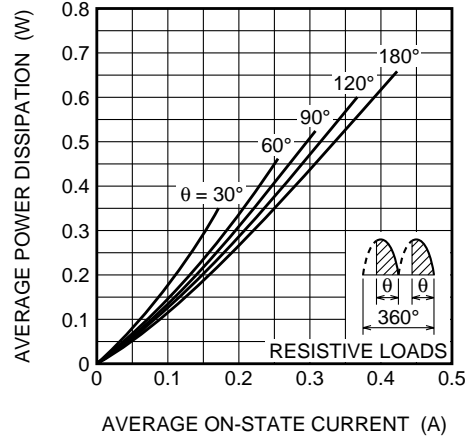
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LOW POWER USE
GLASS PASSIVATION TYPE

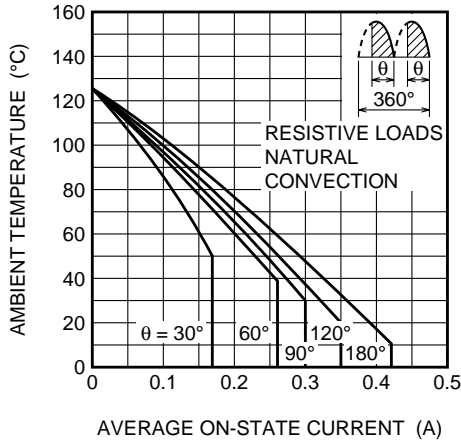
ALLOWABLE AMBIENT TEMPERATURE VS. AVERAGE ON-STATE CURRENT (SINGLE-PHASE HALF WAVE)



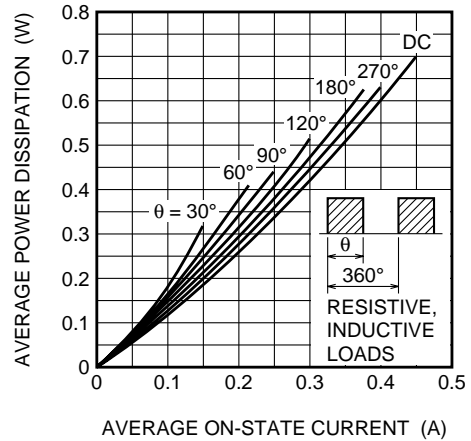
MAXIMUM AVERAGE POWER DISSIPATION (SINGLE-PHASE FULL WAVE)



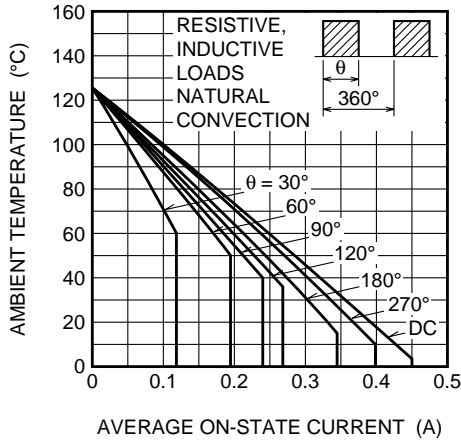
ALLOWABLE AMBIENT TEMPERATURE VS. AVERAGE ON-STATE CURRENT (SINGLE-PHASE FULL WAVE)



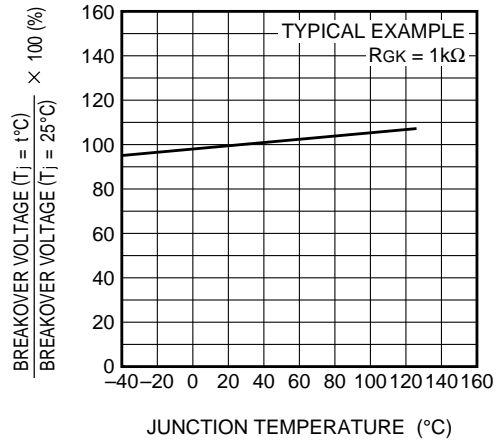
MAXIMUM AVERAGE POWER DISSIPATION (RECTANGULAR WAVE)



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



BREAKOVER VOLTAGE VS. JUNCTION TEMPERATURE



CR02AM-8A

LOW POWER USE
GLASS PASSIVATION TYPE

