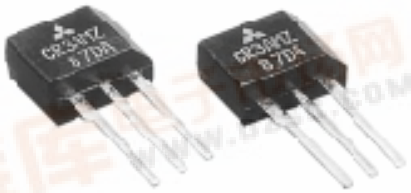
CR3AMZ

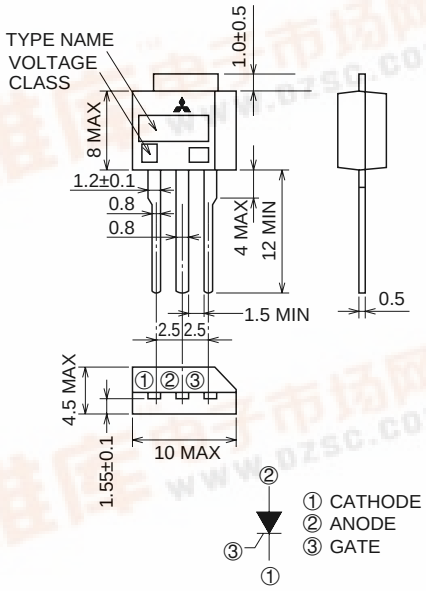
LOW POWER, STROBE USE
NON-INSULATED TYPE, GLASS PASSIVATION TYPE

CR3AMZ



- $I_{T\,(AV)}$ 0.4A
- V_{DRM} 400V
- I_{GT} 30mA

OUTLINE DRAWING Dimensions in mm



TO-202

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	480	V
V_{DRM}	Repetitive peak off-state voltage	400	V
V_{DSM}	Non-repetitive peak off-state voltage	480	V

Symbol	Parameter	Conditions	Ratings	Unit
$I_{T\,(AV)}$	Average on-state current	Commercial frequency, sine half wave, 180° conduction,	0.4	A
I_{TRM}	Repetitive peak on-state current *1	C_M=700μF with discharge current	200	A
P_{GM}	Peak gate power dissipation		0.5	W
$P_{G\,(AV)}$	Average gate power dissipation		0.1	W
V_{FGM}	Peak gate forward voltage		6	V
I_{FGM}	Peak gate forward current		0.5	A
T_j	Junction temperature		–40 ~ +125	°C
T_{stg}	Storage temperature		–40 ~ +125	°C
—	Weight	Typical value	1.1	g

*1: Refer to sections 1, 2 on STROBE FLASHER APPLICATION shown in the last sheet for CR3JM.

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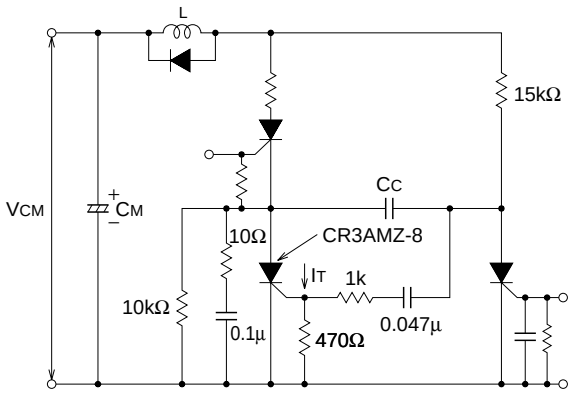
ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I_{RRM}	Repetitive peak reverse current	T_j=25°C, V_{RRM} applied	—	—	0.1	mA
I_{DRM}	Repetitive peak off-state current	T_j=25°C, V_{DRM} applied	—	—	0.1	mA
V_{TM}	On-state voltage	T_a=25°C, I_{TM}=3A, Instantaneous value	—	—	2.0	V
V_{GT}	Gate trigger voltage	T_j=25°C, V_D=6V, R_L=6Ω	—	—	1.5	V
V_{GD}	Gate non-trigger voltage	T_j=125°C, V_D=1/2V_{DRM}	0.1	—	—	V
I_{GT}	Gate trigger current	T_j=25°C, V_D=6V, R_L=6Ω	—	—	30	mA
C_c	Commutating capacitor *2	C_M=700μF, V_{CM}=350V, I_{TM}=200A, L=25μH, T_a=25°C	—	—	2.2	μF

*2. Refer to section 3 on STROBE FLASHER APPLICATION shown in the last sheet for CR3JM.

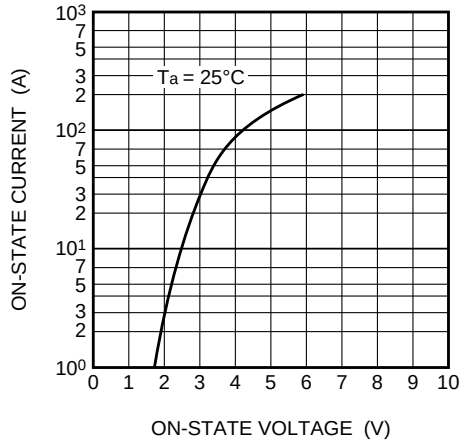
Fig 1. TEST CIRCUIT FOR COMMUTATING CAPACITOR



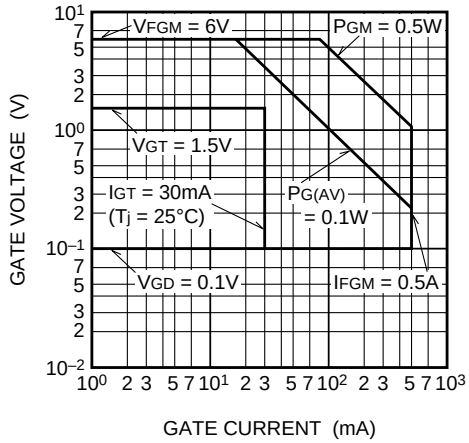
C_M = 700μF L = 25μH
V_{CM} = 350V T_a = 25°C
I_{TM} = 200A CONDUCTION TIME : arbitarity

PERFORMANCE CURVES

MAXIMUM ON-STATE CHARACTERISTICS



GATE CHARACTERISTICS

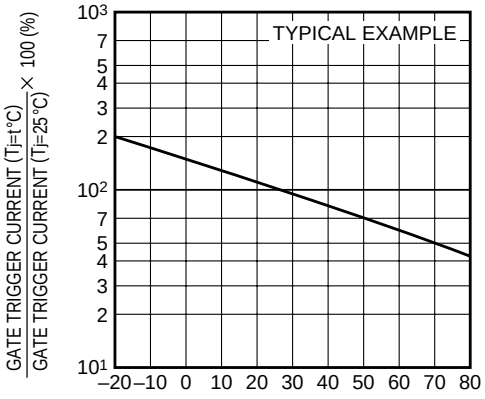


MITSUBISHI ELECTRIC

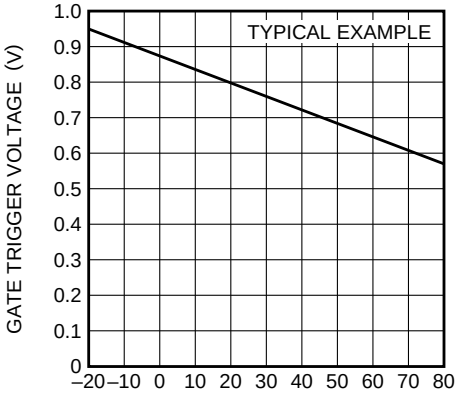
CR3AMZ

LOW POWER, STROBE USE
NON-INSULATED TYPE, GLASS PASSIVATION TYPE

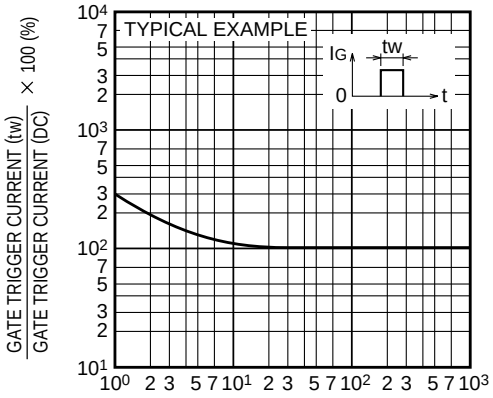
GATE TRIGGER CURRENT VS. JUNCTION TEMPERATURE



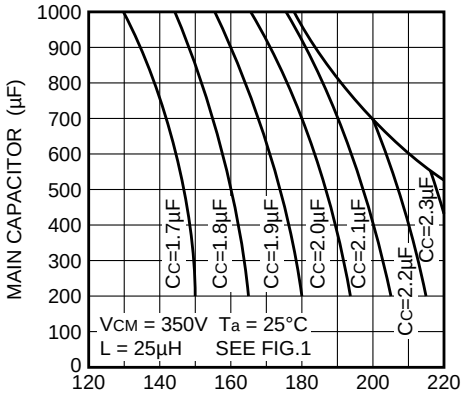
GATE TRIGGER VOLTAGE VS. JUNCTION TEMPERATURE



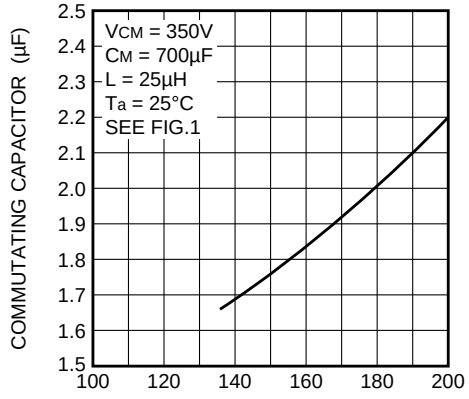
GATE TRIGGER CURRENT VS. GATE CURRENT PULSE WIDTH



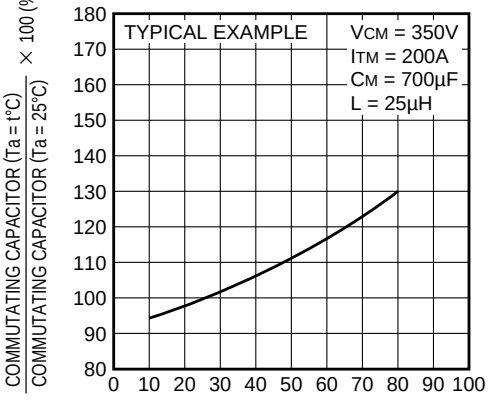
COMMUTATING CHARACTERISTICS



COMMUTATING CAPACITOR VS. PEAK ON-STATE CURRENT



COMMUTATING CAPACITOR VS. AMBIENT TEMPERATURE



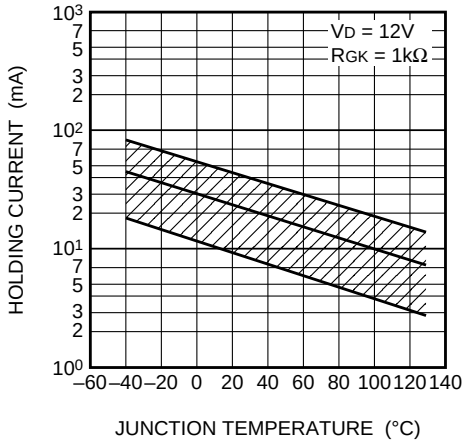
MITSUBISHI ELECTRIC

CR3AMZ

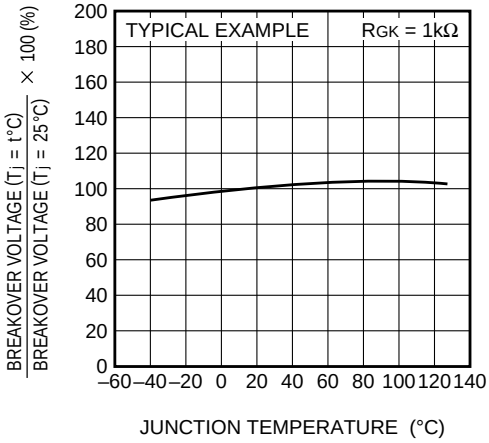
LOW POWER, STROBE USE

NON-INSULATED TYPE, GLASS PASSIVATION TYPE

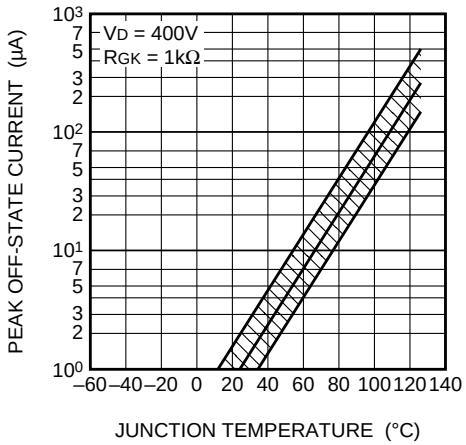
HOLDING CURRENT VS. JUNCTION TEMPERATURE



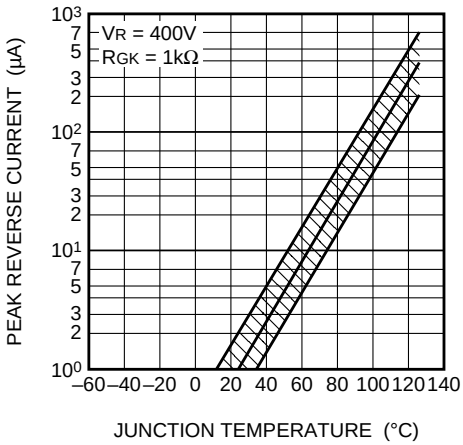
BREAKOVER VOLTAGE VS. JUNCTION TEMPERATURE



PEAK OFF-STATE CURRENT VS. JUNCTION TEMPERATURE



PEAK REVERSE CURRENT VS. JUNCTION TEMPERATURE



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