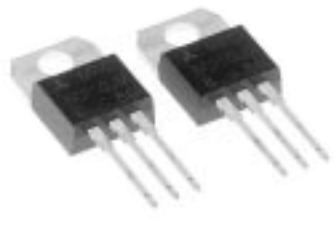


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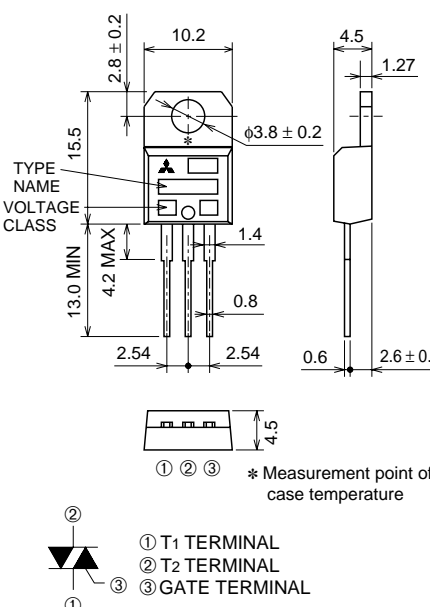
MEDIUM POWER USE
INSULATED TYPE, GLASS PASSIVATION TYPE

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- IT (RMS) 10A
- VDRM400V/600V
- IFGT I , IRGT I , IRGT III 15mA
- V_{iso} 1500V

OUTLINE DRAWING Dimensions
in mm



① ② ③ * Measurement point of case temperature

① T1 TERMINAL
② T2 TERMINAL
③ GATE TERMINAL

TO-220

APPLICATION

Light dimmer

MAXIMUM RATINGS

Symbol	Parameter	Voltage class		Unit
		8	12	
VDRM	Repetitive peak off-state voltage*1	400	600	V
VDSM	Non-repetitive peak off-state voltage*1	500	720	V

Symbol	Parameter	Conditions	Ratings	Unit
I _T (RMS)	RMS on-state current	Commercial frequency, sine full wave 360° conduction, T _c =93°C*3	10	A
I _{TSM}	Surge on-state current	60Hz sinewave 1 full cycle, peak value, non-repetitive	100	A
i ² _t	i ² _t for fusing	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current	41.6	A ² s
P _{GM}	Peak gate power dissipation		5	W
P _G (AV)	Average gate power dissipation		0.5	W
V _{GM}	Peak gate voltage		10	V
I _{GM}	Peak gate current		2	A
T _j	Junction temperature		-40 ~ +125	°C
T _{stg}	Storage temperature		-40 ~ +125	°C
—	Weight	Typical value	2.3	g
V _{iso}	Isolation voltage	T _a =25°C, AC 1 minute, T1 · T2 · G terminal to case	1500	V

*1. Gate open.

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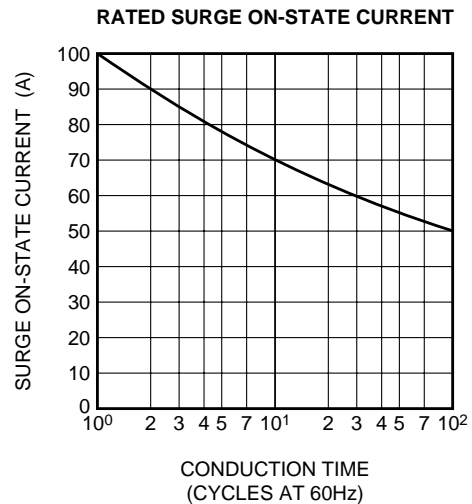
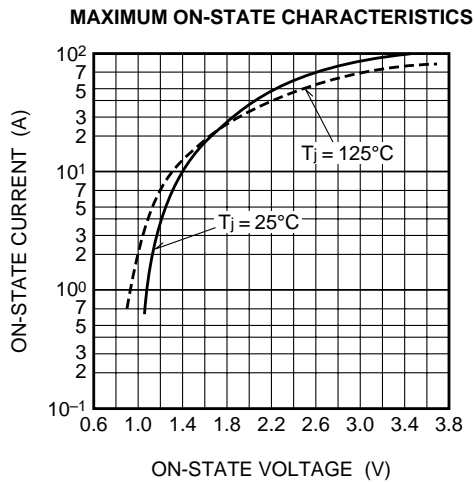
MEDIUM POWER USE
INSULATED TYPE, GLASS PASSIVATION TYPE

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions	Limits			Unit	
			Min.	Typ.	Max.		
IDRM	Repetitive peak off-state current	$T_j=125^\circ\text{C}$, V_{DRM} applied	—	—	2.0	mA	
V _{TM}	On-state voltage	$T_c=25^\circ\text{C}$, $I_{\text{TM}}=15\text{A}$, Instantaneous measurement	—	—	1.5	V	
V _{FGT I}	Gate trigger voltage *2	$T_j=25^\circ\text{C}$, $V_D=6\text{V}$, $R_L=6\Omega$, $R_G=330\Omega$	I	—	—	1.5	V
V _{RGT I}			II	—	—	1.5	V
V _{RGT III}			III	—	—	1.5	V
I _{FGT I}	Gate trigger current *2	$T_j=25^\circ\text{C}$, $V_D=6\text{V}$, $R_L=6\Omega$, $R_G=330\Omega$	I	—	—	15	mA
I _{RGT I}			II	—	—	15	mA
I _{RGT III}			III	—	—	15	mA
V _{GD}	Gate non-trigger voltage	$T_j=125^\circ\text{C}$, $V_D=1/2V_{\text{DRM}}$	0.2	—	—	V	
R _{th(j-c)}	Thermal resistance	Junction to case *3 *4	—	—	2.7	$^\circ\text{C/W}$	

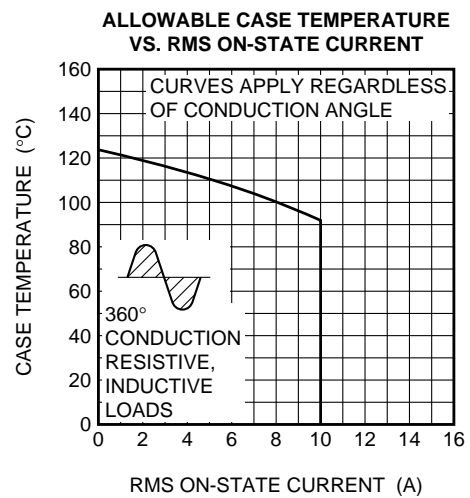
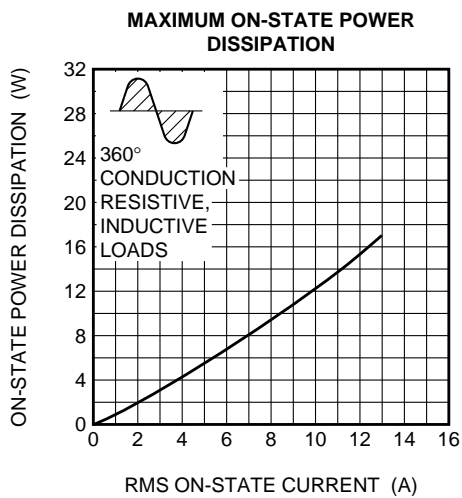
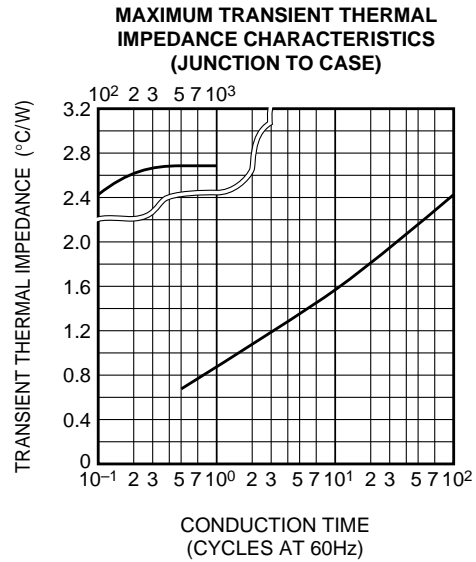
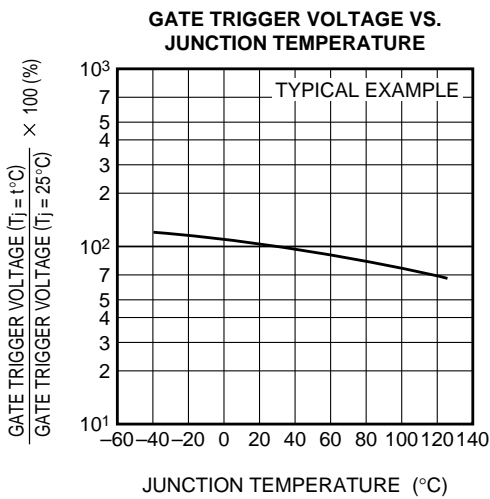
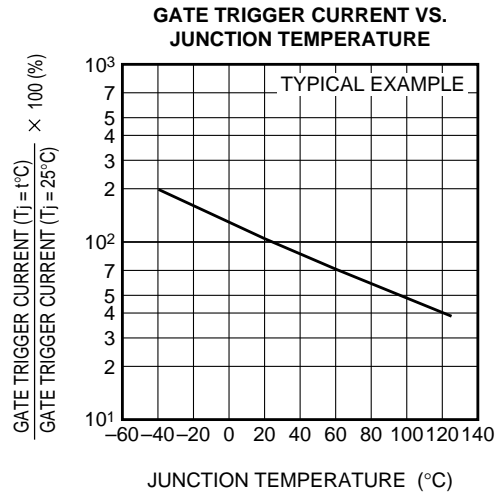
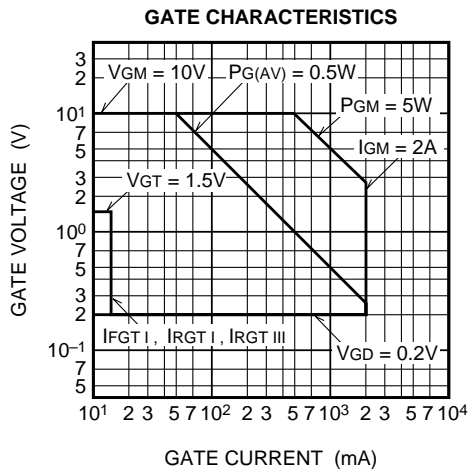
*2. Measurement using the gate trigger characteristics measurement circuit.
 *3. Case temperature is measured at the T₂ terminal 1.5mm away from the molded case.
 *4. The contact thermal resistance R_{th(c-f)} in case of greasing is 1.0 $^\circ\text{C/W}$.

PERFORMANCE CURVES



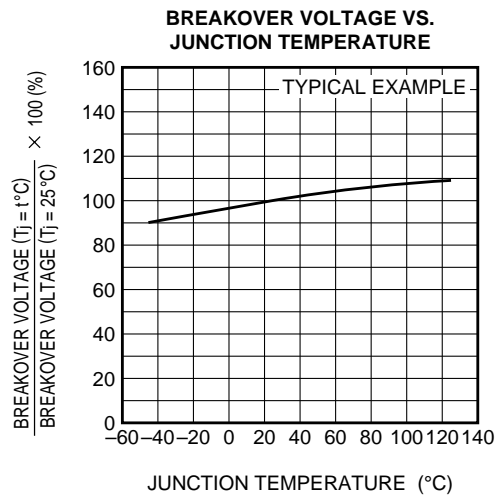
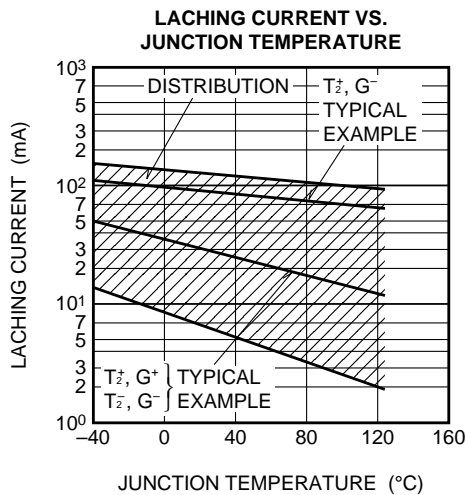
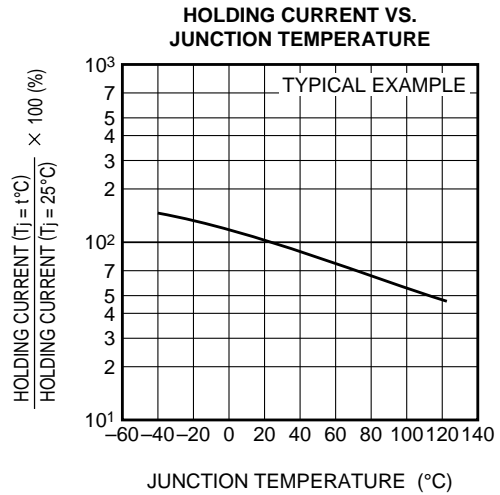
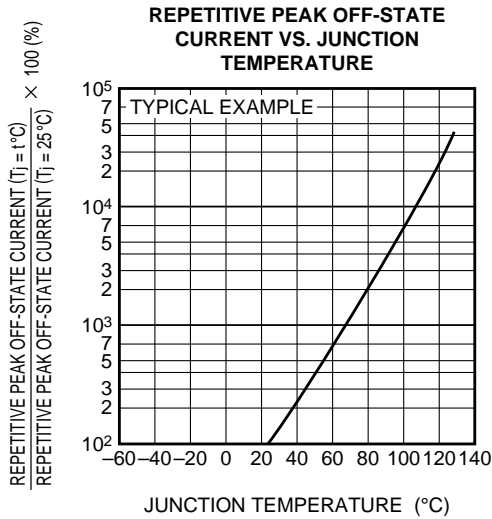
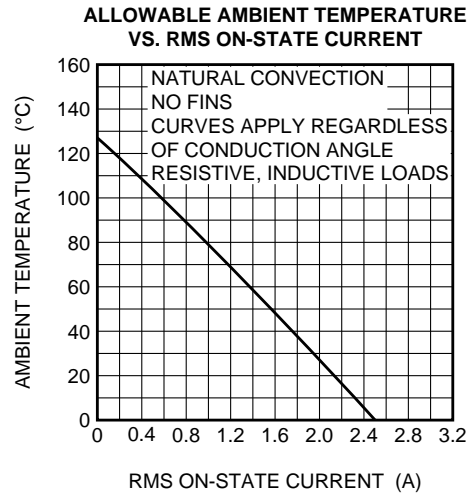
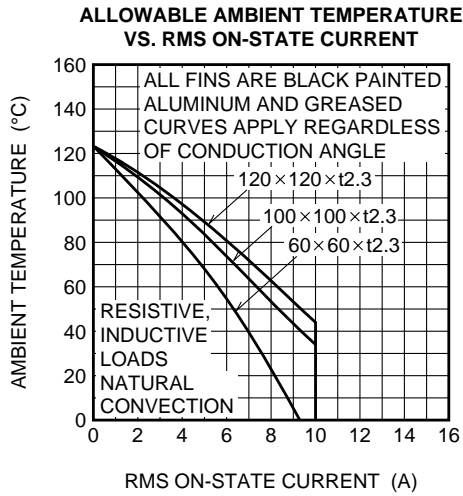
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MEDIUM POWER USE
INSULATED TYPE, GLASS PASSIVATION TYPE



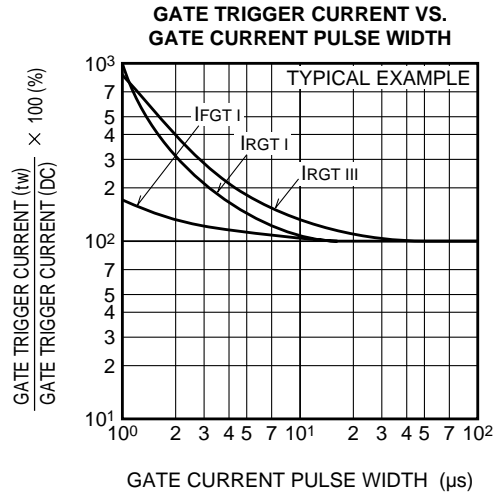
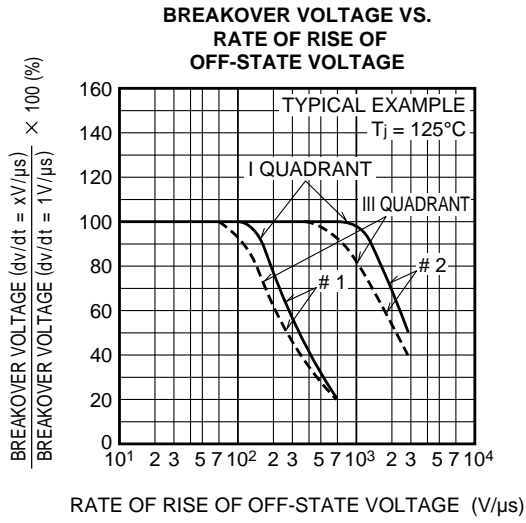
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MEDIUM POWER USE
INSULATED TYPE, GLASS PASSIVATION TYPE



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MEDIUM POWER USE
INSULATED TYPE, GLASS PASSIVATION TYPE



GATE TRIGGER CHARACTERISTICS TEST CIRCUITS

