

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT	NOTE
Peak off-State Current		I_{DRM}	$T_j = 125^\circ\text{C}, V_{DM} = V_{DRM}$	—	—	2	mA	
On-State Voltage		V_{TM}	$I_{TM} = 10\text{ A}$	—	—	1.4	V	See Fig. 1
Gate Trigger Current	Trigger Mode I	I_{GT}	$V_{DM} = 12\text{ V}$ $R_L = 30\ \Omega$	—	—	30	mA	See Fig. 4
	II			—	—	80		
	III			—	—	30		
	IV			—	—	30		
Gate Trigger Voltage	Trigger Mode I	V_{GT}	$V_{DM} = 12\text{ V}$ $R_L = 30\ \Omega$	—	—	1.5	V	See Fig. 4
	II			—	—	2.0		
	III			—	—	1.5		
	IV			—	—	1.5		
Gate Non-Trigger Voltage		V_{GD}	$T_j = 125^\circ\text{C}$ $V_{DM} = 1/2 V_{DRM}$	0.3	—	—	V	
Commutating dv/dt		$(dv/dt)\text{ C}$	$T_j = 125^\circ\text{C}$ $(di_T/dt)\text{ C} = -6\text{ A/ms}$ $V_D = 400\text{ V}$	10	—	—	V/ μs	
Holding Current		I_H	$V_D = 24\text{ V}$	—	30	—	mA	
Thermal Resistance		$R_{th(j-c)}$	Junction to Case	—	—	1.8	$^\circ\text{C/W}$	See Fig. 13

Trigger Mode & Test Circuit

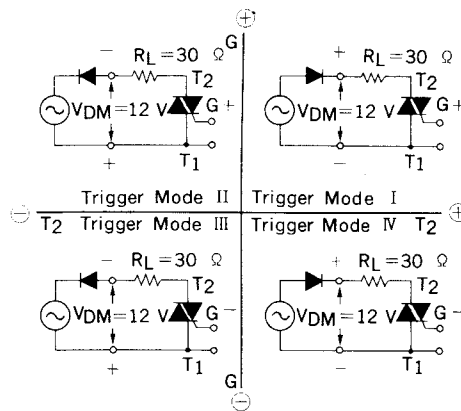


Fig. 1 $i_T - v_T$ CHARACTERISTIC

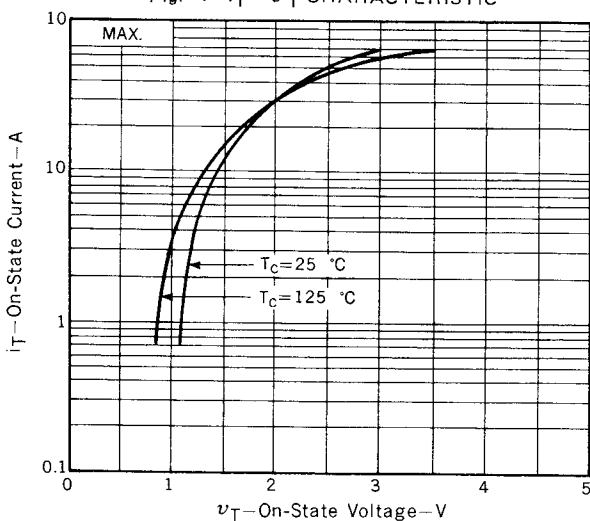


Fig. 2 I_{TSM} RATING

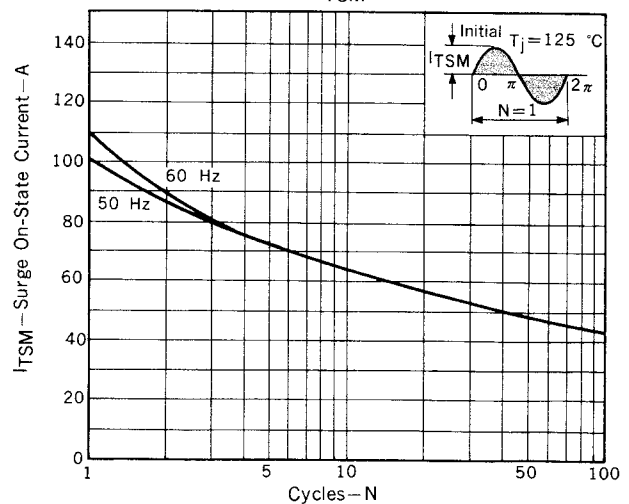


Fig. 3 $V_G - I_G$ RATING

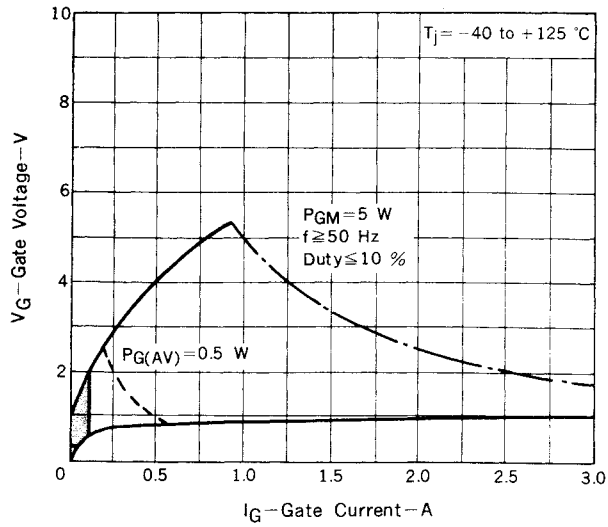


Fig. 4 $V_{GT} - I_{GT}$ CHARACTERISTIC

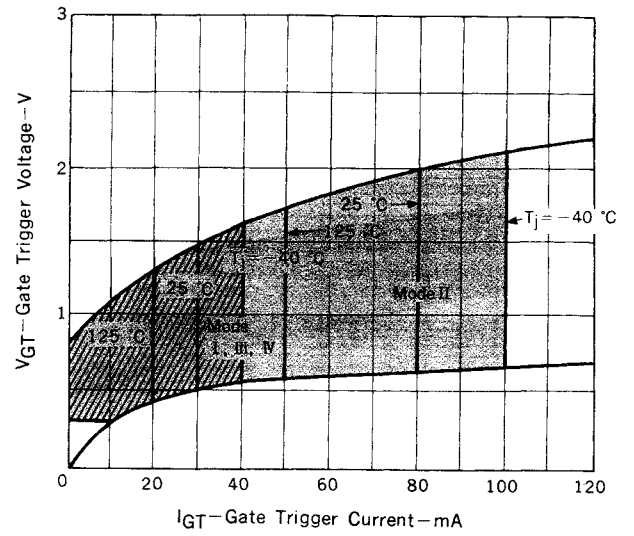


Fig. 5 $I_{GT} - T_a$ TYPICAL DISTRIBUTION

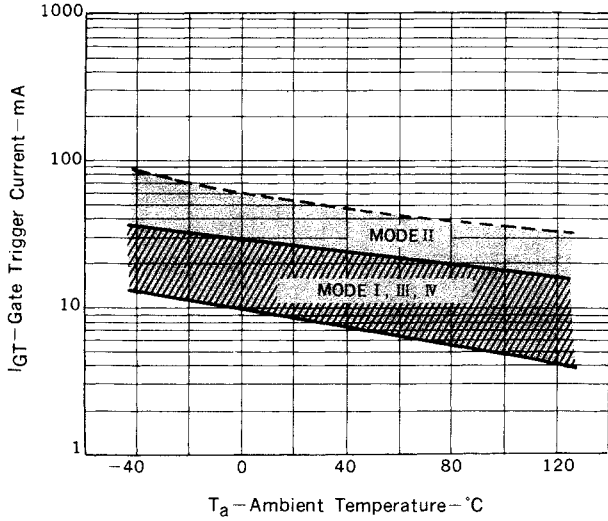


Fig. 6 $V_{GT} - T_a$ TYPICAL DISTRIBUTION

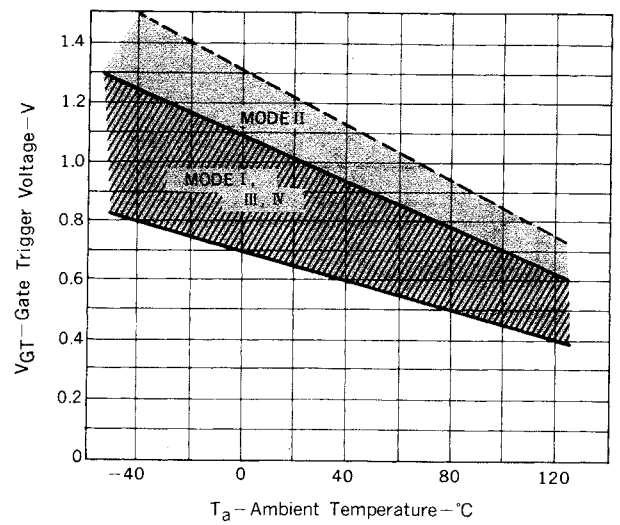


Fig. 7 $i_{GT} - \tau$ TYPICAL DISTRIBUTION

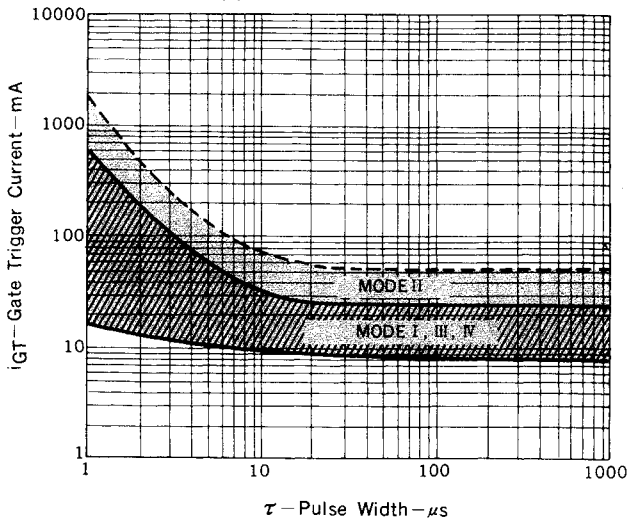


Fig. 8 $v_{GT} - \tau$ TYPICAL DISTRIBUTION

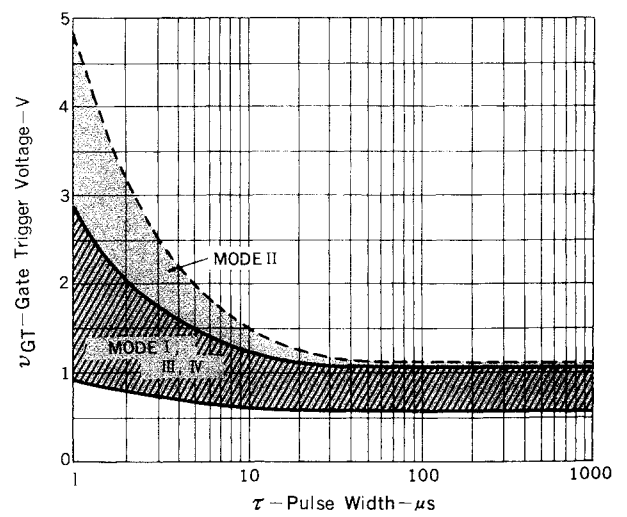


Fig. 9 $I_H - T_a$ TYPICAL DISTRIBUTION

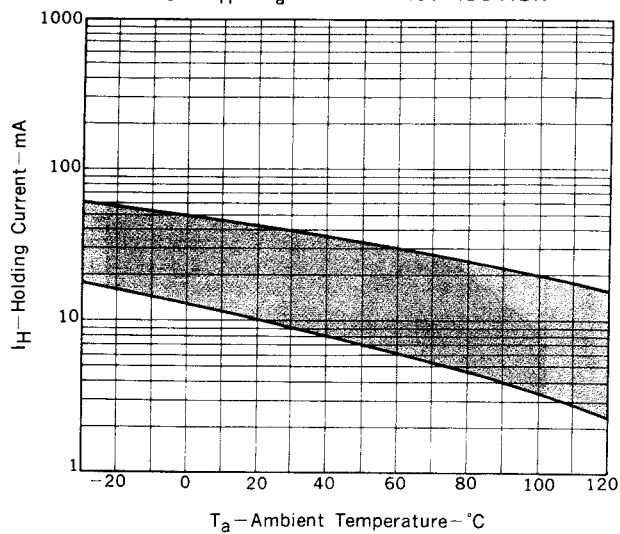


Fig. 10 $P_{T(AV)} - I_{T(RMS)}$ CHARACTERISTIC

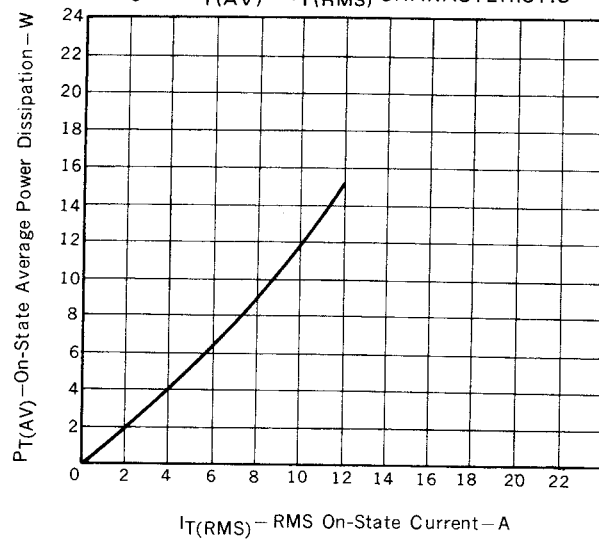


Fig. 11 $T_c - I_{T(RMS)}$ RATING

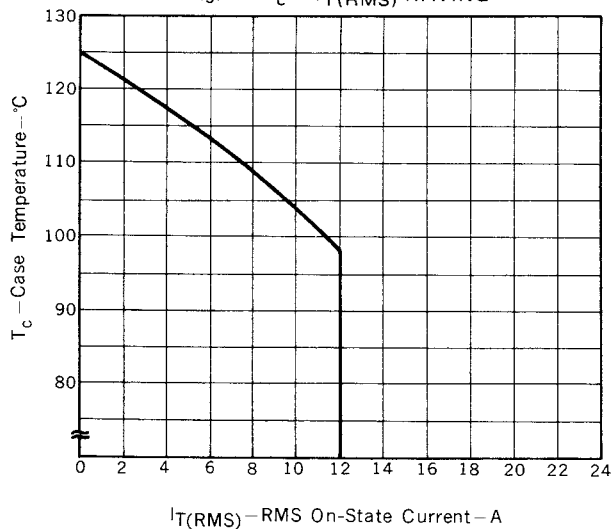


Fig. 12 $T_a - I_{T(RMS)}$ RATING

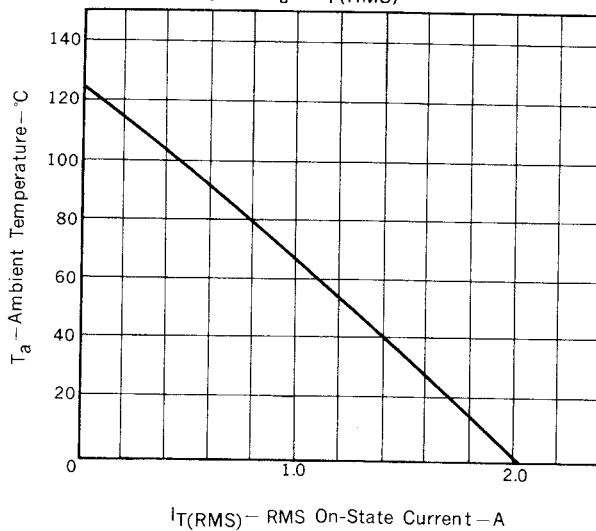
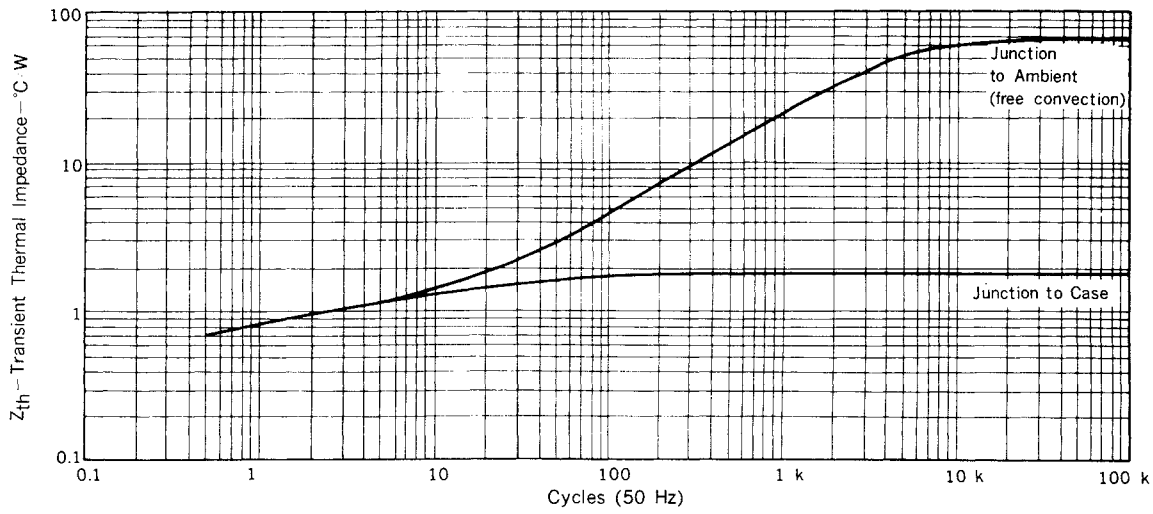


Fig. 13 Z_{th} CHARACTERISTIC



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