

MRH200.22

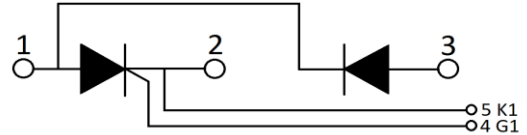
Thyristor/Diode module

Features:

- International standard package
- High surge capability
- Glass passivated chip
- Simple mounting
- UL recognized, file no. E312789

Typical applications:

- Power converters
- Lighting control
- DC motor control and drives
- Heat and temperature control



Symbol	Characteristics	Test Conditions	Value			Unit
			Min	Typ	Max	
$V_{RSM/DSM}$	Non-repetitive reverse/forward blocking voltage	$T_j = 25^\circ\text{C}$			2300	V
$V_{RRM/DRM}$	Repetitive reverse/forward blocking voltage	$T_j = 25^\circ\text{C}$			2200	V
$I_T-I_F(AV)$	On-state/forward average current	180° half sine wave 50Hz			200	A
$I_T-I_F(RMS)$	RMS on-state current	$T_c = 85^\circ\text{C}$ (thyristor)			314	A
I_{RRM} I_{DRM}	Repetitive peak current	at V_{DRM}/V_{RRM} $T_j = 125^\circ\text{C}$			30	mA
$I_{TSM}-I_{FSM}$	Surge non repetitive current	10ms half sine wave $T_j = 125^\circ\text{C}$			7000	A
$I^2 t$	$I^2 t$ for fusing coordination				245000	A^2s
V_{TO}	Threshold voltage	$T_j = 125^\circ\text{C}$			0.90	V
r_T	On-state slope resistance	$T_j = 125^\circ\text{C}$			1.40	m Ω
$V_{TM}-V_{FM}$	Thyristor: Peak on-state voltage	$T_j=25^\circ\text{C}$; $I_T=600\text{A}$			2.10	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM} = 67\% V_{DRM}$, $T_j = 125^\circ\text{C}$, linear voltage rise			1000	V/ μs
di/dt	Critical rate of rise of off-state current	$T_j = 125^\circ\text{C}$, Gate source 500mA, $T_r < 0,5\mu\text{s}$ Repetitive			200	A/ μs
I_{GT}	Gate trigger current	$V_A = 12\text{V}$, $I_A = 1\text{A}$, $T_j = 25^\circ\text{C}$	30		180	mA
V_{GT}	Gate trigger voltage		0.7		2.5	V
I_H	Holding current		20		200	mA
I_L	Latching current				200	mA
$R_{th(j-c)}$	Thermal resistance junction to case	Single side cooled per chip			0.12	$^\circ\text{C}/\text{W}$
$R_{th(c-s)}$	Thermal resistance case to sink	Single side cooled per chip			0.08	$^\circ\text{C}/\text{W}$
V_{ISO}	Isolation voltage	50Hz, RMS, $t = 1\text{min}$, $I_{ISO} : 1\text{mA (MAX)}$	3000			V
F_M	Mounting torque - copper plate (M6)		4.5		6	N·m
	Mounting torque - terminal (M6)		4.5		6	N·m
T_{stg}	Storage Temperature		-40		125	$^\circ\text{C}$
T_j	Operating Temperature		-40		125	$^\circ\text{C}$
W_t	Weight			350		g
Outline	216FE					

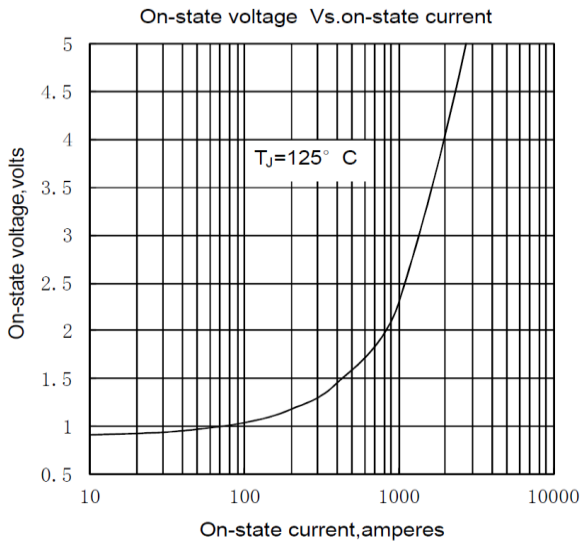


Fig.1

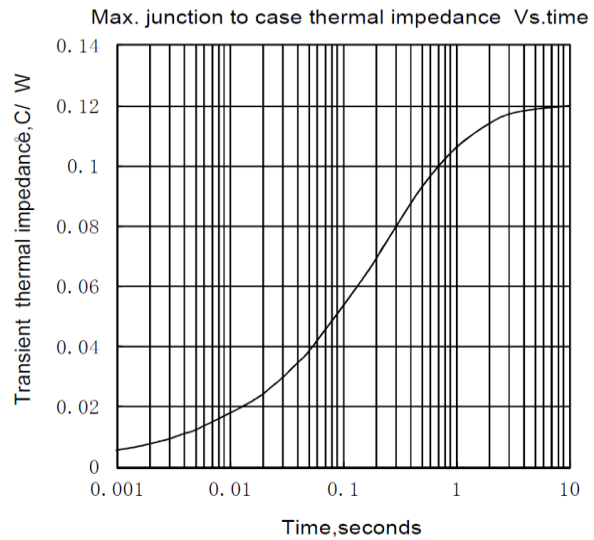


Fig.2

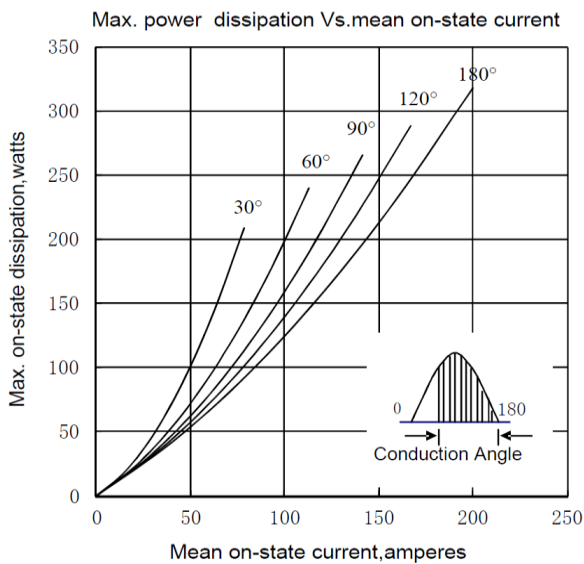


Fig.3

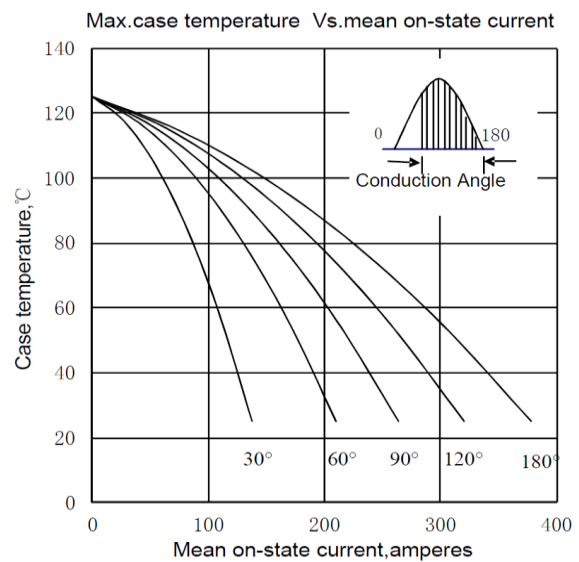


Fig.4

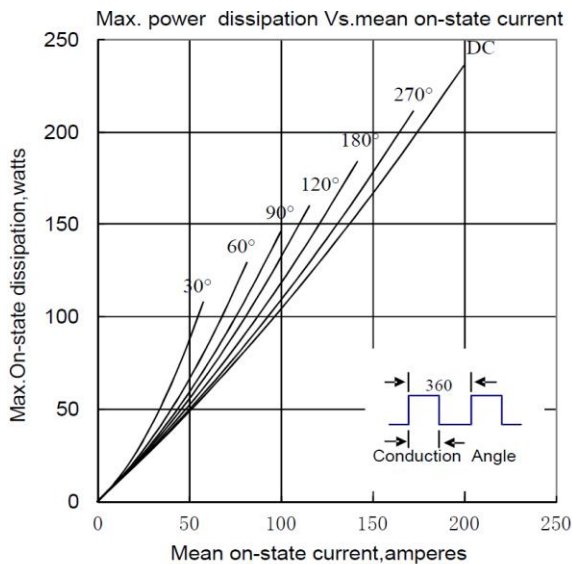


Fig.5

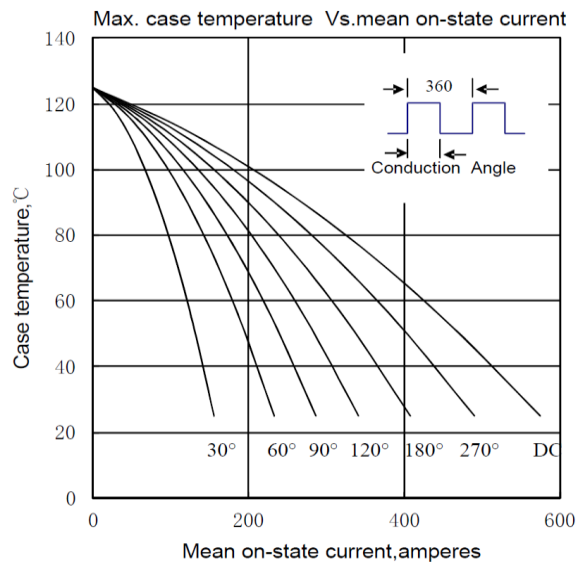


Fig.6

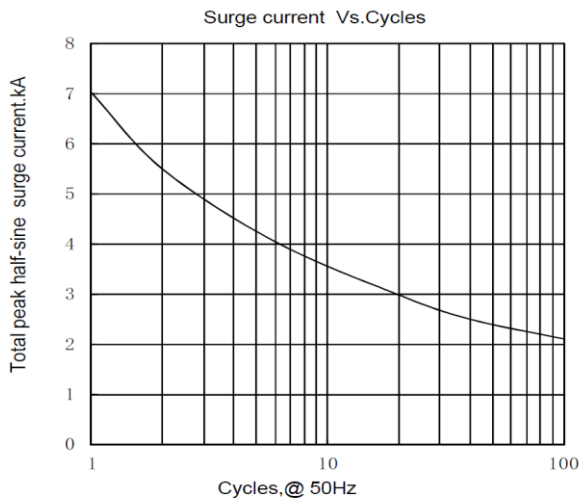


Fig.7

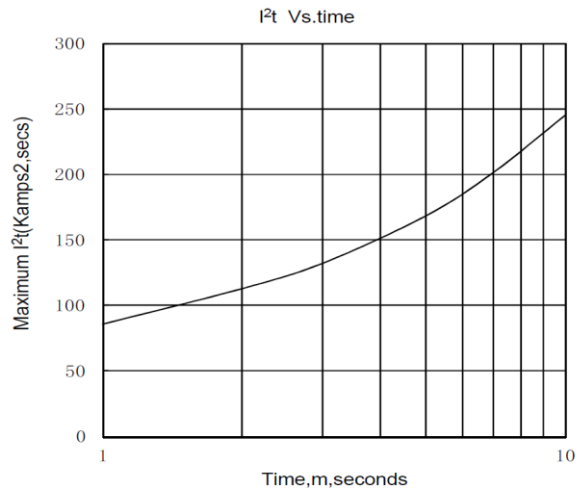


Fig.8

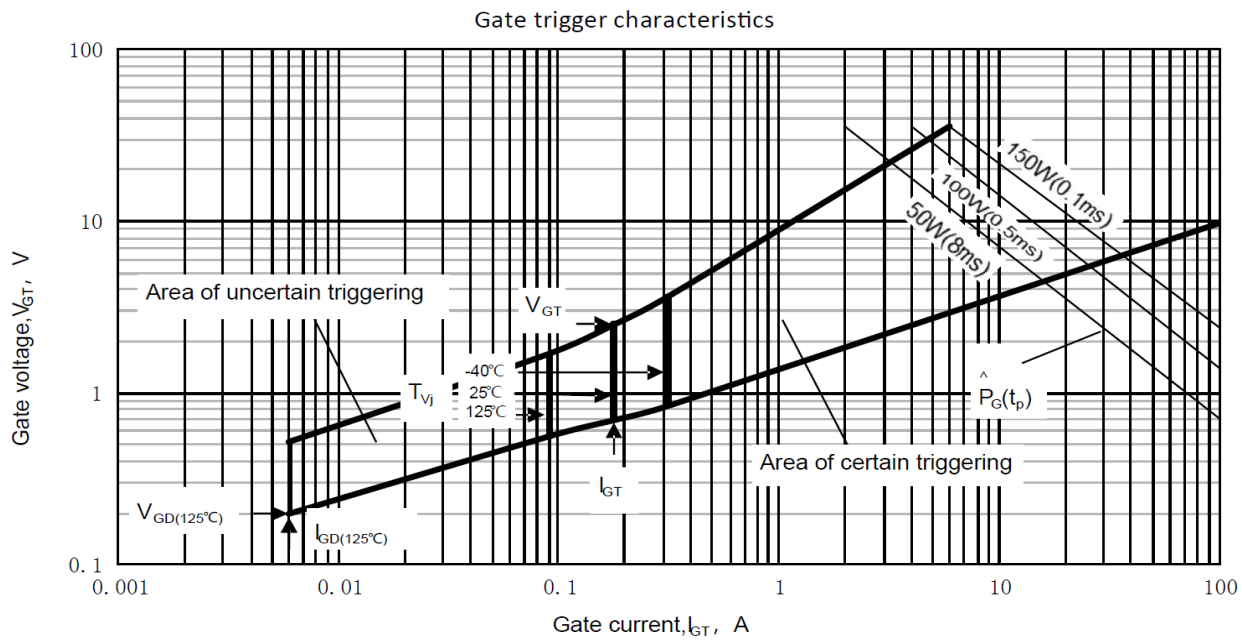
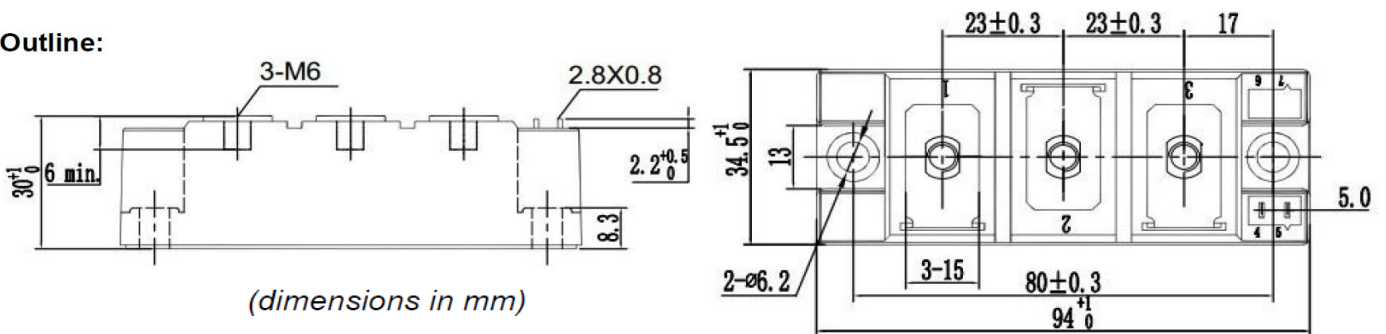


Fig.9

Outline:



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