TECHSEM

MHC75 MHA75 MHK75 MHX75
Fast Turn-off Thyristor/Fast recovery diode Modules

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with Incrtased power cycling capability
- Space and weight savings

Typical Applications

- Inverter
- Inductive heating
- Chopper

$I_{T(AV)}$	75 A
V_{DRM} /V_{RRM}	600~1600 V
I_{TSM}	1.60 A×10^3
I^2t	13 A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_j(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled,T_c=85°C	115			75	A
$I_{T(RMS)}$	RMS on-state current		115			118	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+100V respectively	115	600		1600	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	115			30	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	115			1.60	KA
I^2t	I^2T for fusing coordination					13	A^2s*10^3
V_{TO}	Threshold voltage		115			0.85	V
r_T	On-state slop resistance					4.88	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=225A	25			2.20	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	115			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t_r ≤0.5μs Repetitive	115			200	A/μs
tq	Circuit commutated turn-off time	I_{TM}= 75 A,tp=1000μs, V_R =50V dv/dt=30V/μs ,di/dt=-20A/μs	115	15		35	μs
t_{rr}	Reverse recovery time	I_{FM}=75A,tp=1000μs, -di/dt=20A/μs,V_R=50V	115		1.5		μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		150	mA
V_{GT}	Gate trigger voltage			1.0		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	V_{DM}= 67%V_{DRM}	115	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.200	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Thermal connection torque(M6)				6.0		N·m
	Mounting torque(M6)				6.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				860		g
Outline	413F3						

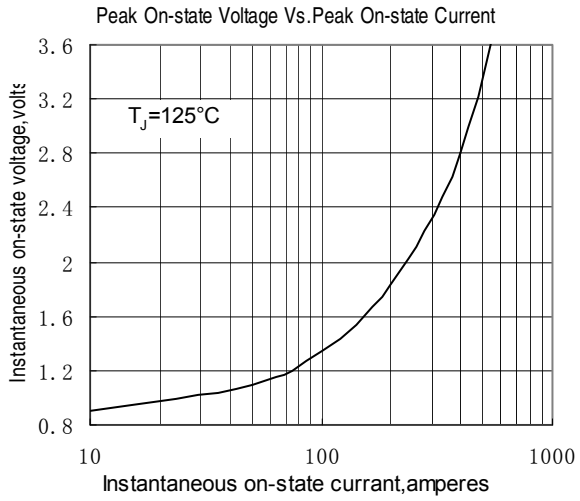


Fig.1

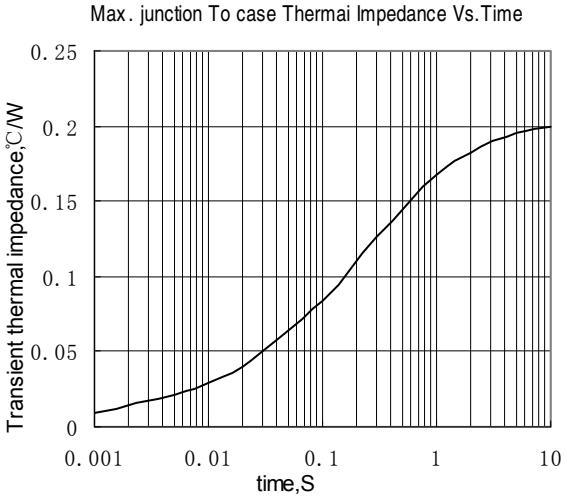


Fig.2

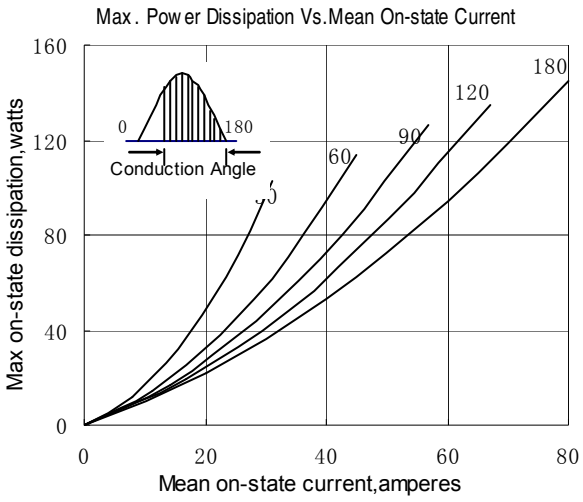


Fig.3

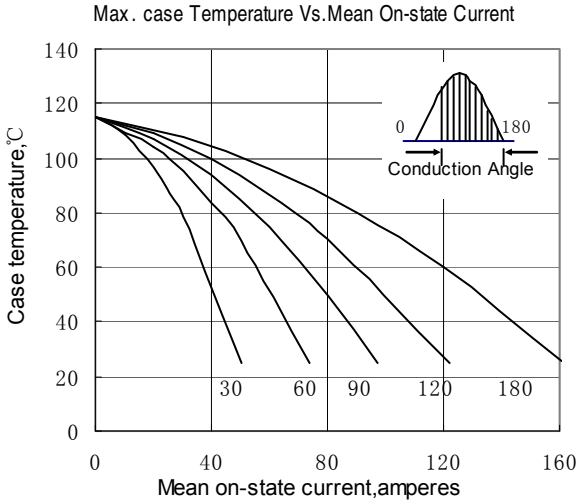


Fig.4

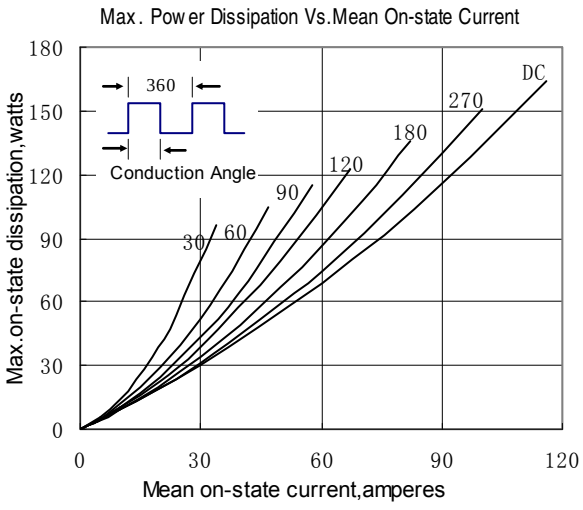


Fig.5

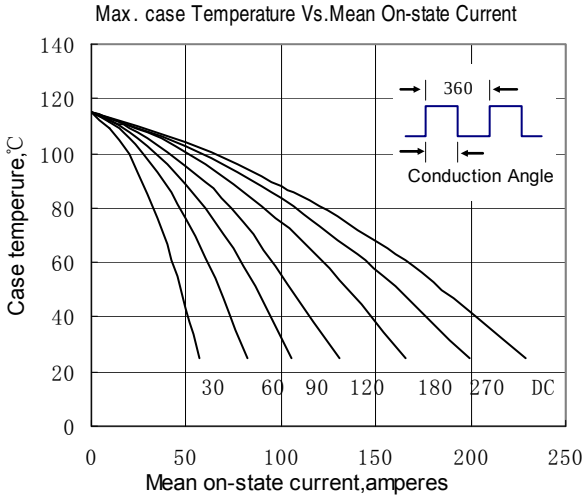


Fig.6

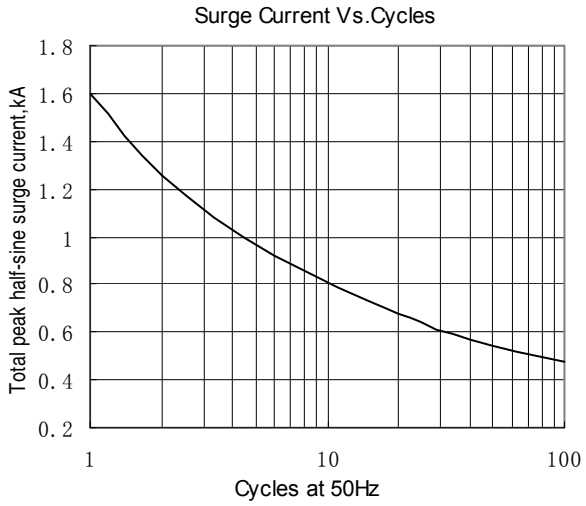


Fig.7

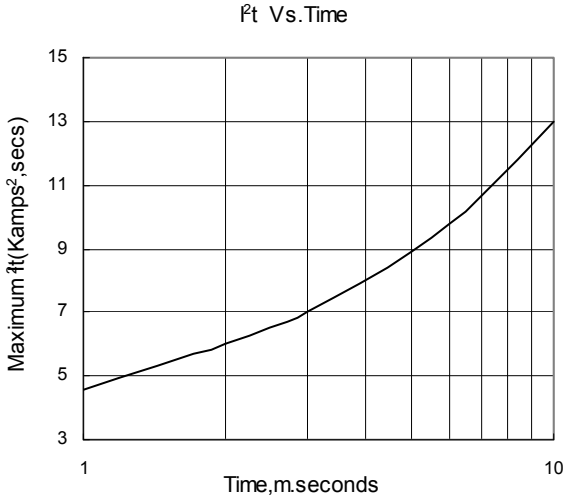


Fig.8

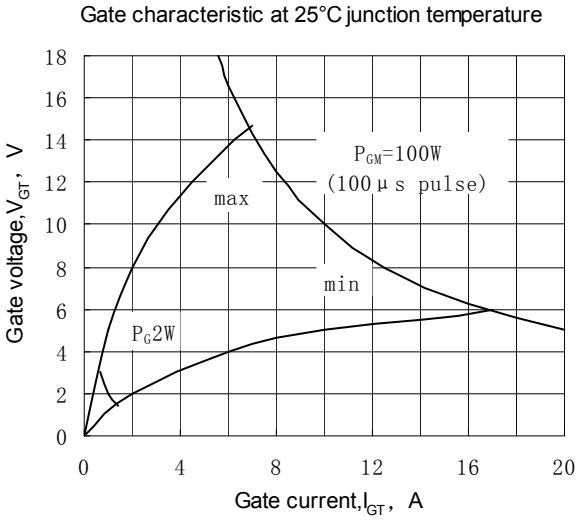


Fig.9

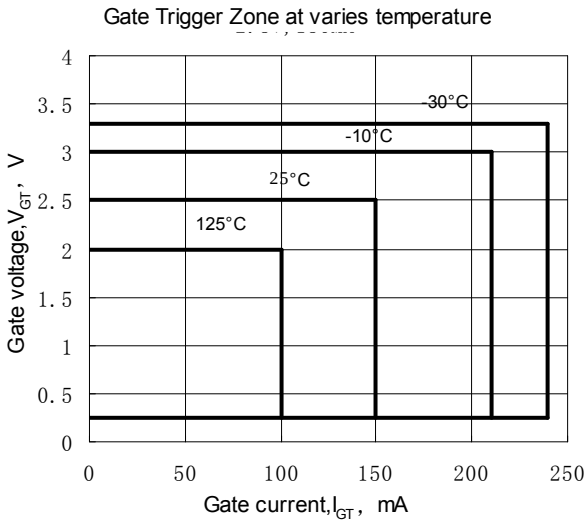
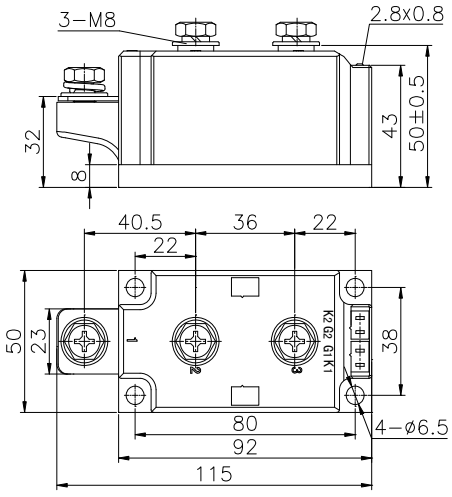


Fig.10

Outline:



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