

MTG(AA)60 MTY(AA)60

Thyristor Modules(Non-isolated Type)

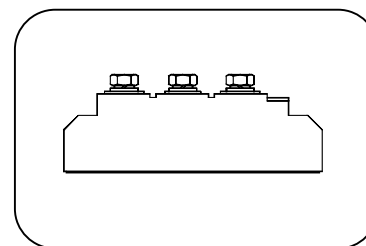
Features:

- n Non-Isolated. Mounting base as common
- n Pressure contact technology with
Increased power cycling capability
- n Low on-state voltage drop

Typical Applications

- n Welding Power Supply
- n Various DC Power supplies
- n DC supply for PWM inverter

$I_{T(AV)}$ **60 A**
 V_{DRM}/V_{RRM} **200~600 V**
 I_{TSM} **$2.10 A \times 10^3$**
 I^2t **$22.4 A^2 S \times 10^3$**



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 =110°C	140			60	A
$I_{T(RMS)}$	RMS on-state current		140			94	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 200V$ respectively	140	200		600	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	140			6	mA
I_{TSM}	Surge on-state current	10ms half sine wave	140			2.10	KA
I^2t	I^2T for fusing coordination	$V_R = 60\% V_{RRM}$				22.4	$A^2 s \times 10^3$
V_{TO}	Threshold voltage		140			0.80	V
r_T	On-state slop resistance					2.65	mΩ
V_{TM}	Peak on-state voltage	$I_{TM} = 180A$	25			1.35	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM} = 67\% V_{DRM}$	140			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A $t_r \leq 0.5\mu s$ Repetitive	140			100	A/μs
I_{GT}	Gate trigger current	$V_A = 12V, I_A = 1A$	25	30		100	mA
V_{GT}	Gate trigger voltage			0.8		2.5	V
I_H	Holding current			20		150	mA
V_{GD}	Non-trigger gate voltage	At 67% V_{DRM}	140	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.420	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink	Single side cooled				0.1	°C /W
F_m	Thermal connection torque (M5)				4.0		N·m
	Mounting torque (M6)				6.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				220		g
Outline	208F4						

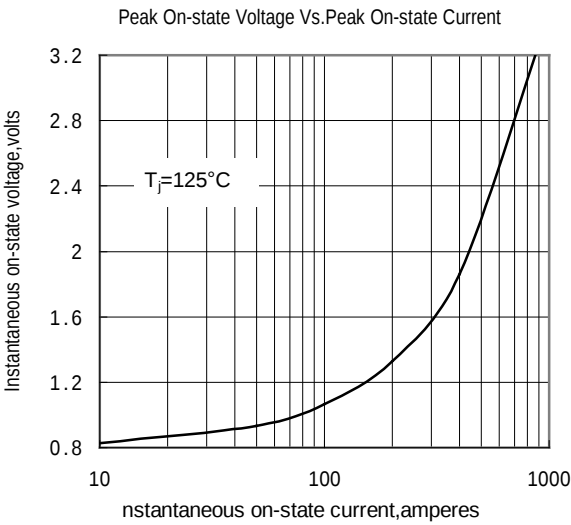


Fig.1

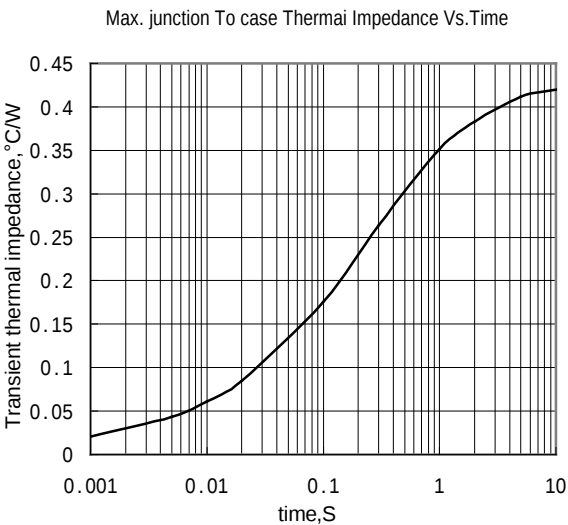


Fig.2

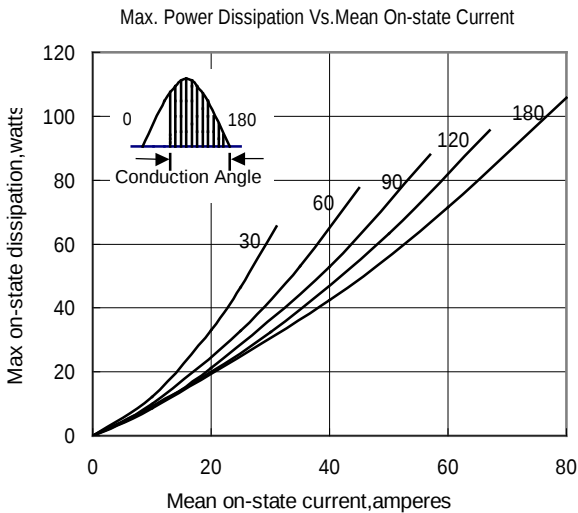


Fig.3

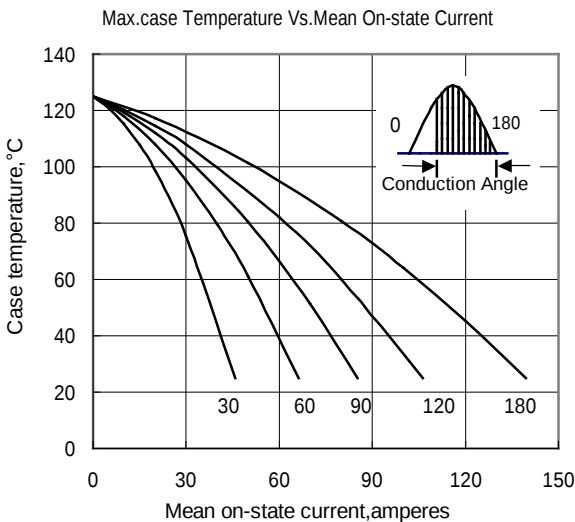


Fig.4

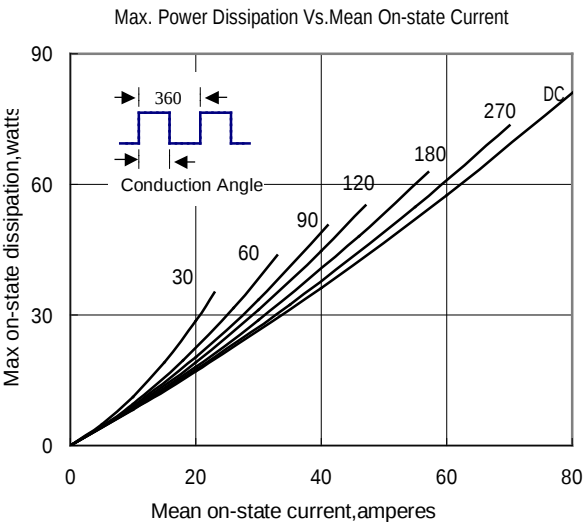


Fig.5

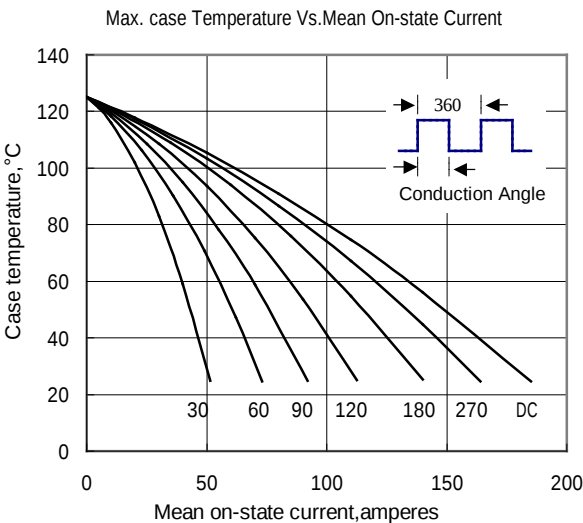


Fig.6

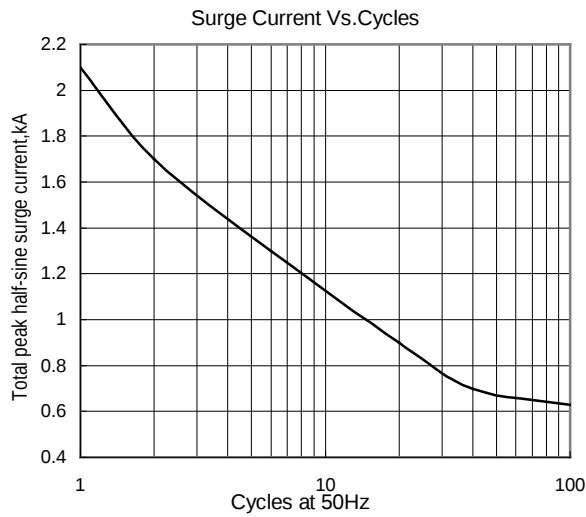


Fig.7

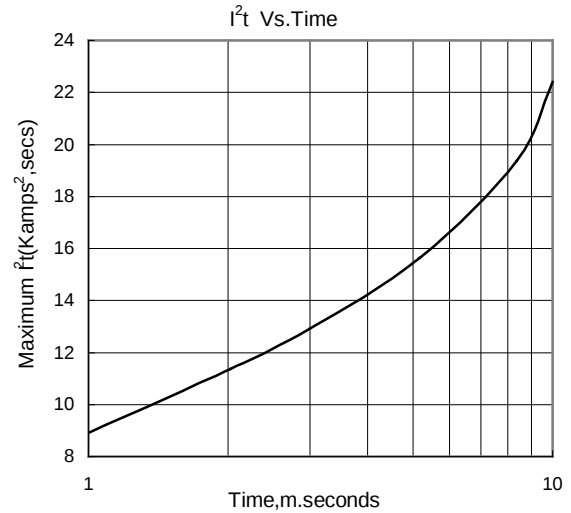


Fig.8

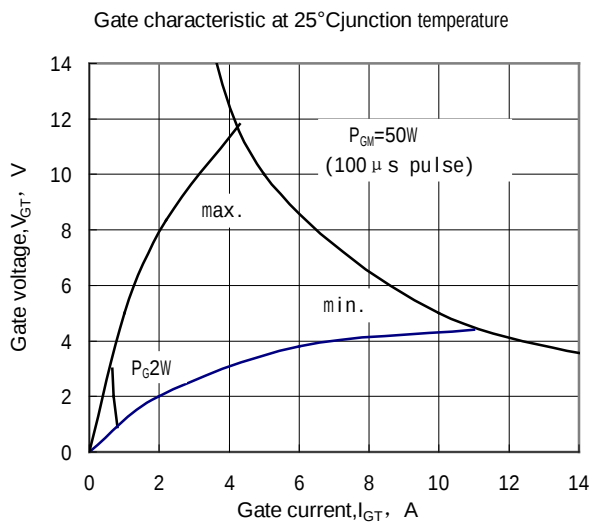


Fig.9

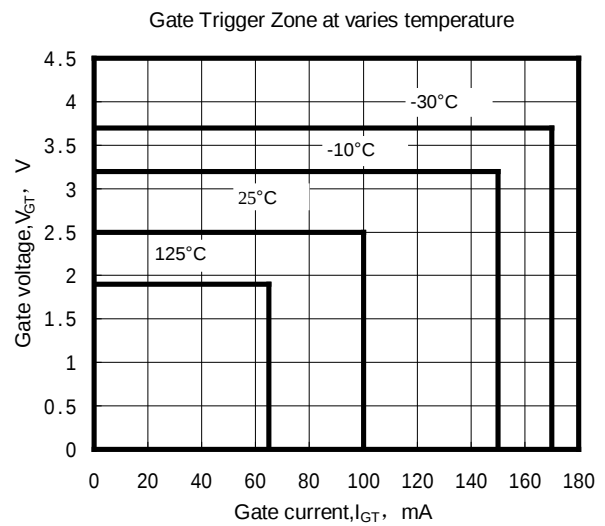
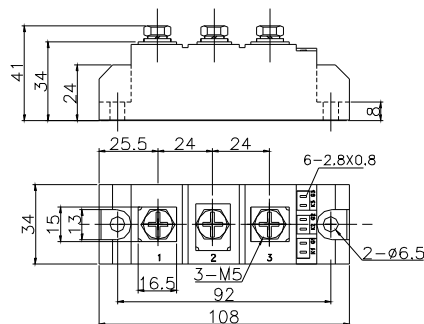


Fig.10

Outline:



208F4

