**Features:**

- n Non-Isolated. Mounting base as anode or csthode terminal
- 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

V_{RRM}, V_{DRM}	Type & Outline	
800V	MTx50-08-213F4	MFx50-08-213F4
1000V	MTx50-10-213F4	MFx50-10-213F4
1200V	MTx50-12-213F4	MFx50-12-213F4
1400V	MTx50-14-213F4	MFx50-14-213F4
1600V	MTx50-16-213F4	MFx50-16-213F4
1800V	MTx50-18-213F4	MFx50-18-213F4

MTx stands for any type of **MTG, MTY**
 MFx stands for any type of **MFG, MFY**

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J(^{\circ}\text{C})$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_c=90^{\circ}\text{C}$	125			50	A
$I_{T(RMS)}$	RMS on-state current					79	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			8	mA
I_{TSM}	Surge on-state current	$V_R=60\%V_{RRM}$, $t=10\text{ms}$ half sine	125			1.2	kA
I^2t	I^2t for fusing coordination		125			7.2	$10^3\text{A}^2\text{s}$
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slope resistance					5.41	m Ω
V_{TM}	Peak on-state voltage	$I_{TM}=150\text{A}$	25			1.70	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125			800	V/ μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A $t_r \leq 0.5\mu\text{s}$ Repetitive	125			100	A/ μs
I_{GT}	Gate trigger current	$V_A=12\text{V}$, $I_A=1\text{A}$	25	30		100	mA
V_{GT}	Gate trigger voltage			0.8		2.5	V
I_H	Holding current			10		180	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	125			0.20	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine, Single side cooled per chip				0.48	$^{\circ}\text{C/W}$
$R_{th(c-h)}$	Thermal resistance case to heatsink	At 180° sine, Single side cooled per chip				0.10	$^{\circ}\text{C/W}$
F_m	Terminal connection torque(M6)			4.5		6.0	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T_{vj}	Junction temperature			-40		125	$^{\circ}\text{C}$
T_{stg}	Stored temperature			-40		125	$^{\circ}\text{C}$
W_t	Weight				280		g
Outline	213F4						

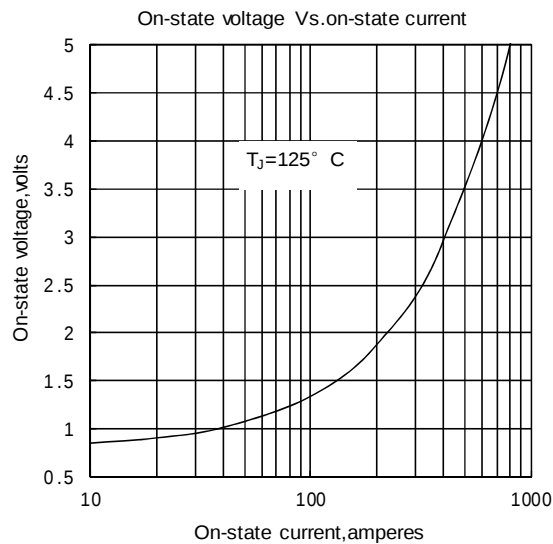


Fig.1

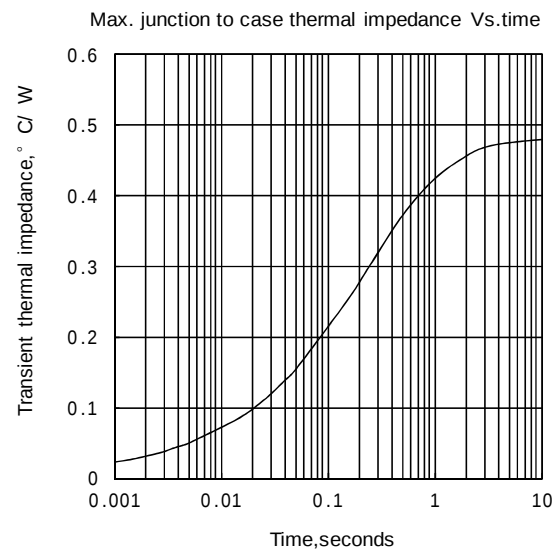


Fig.2

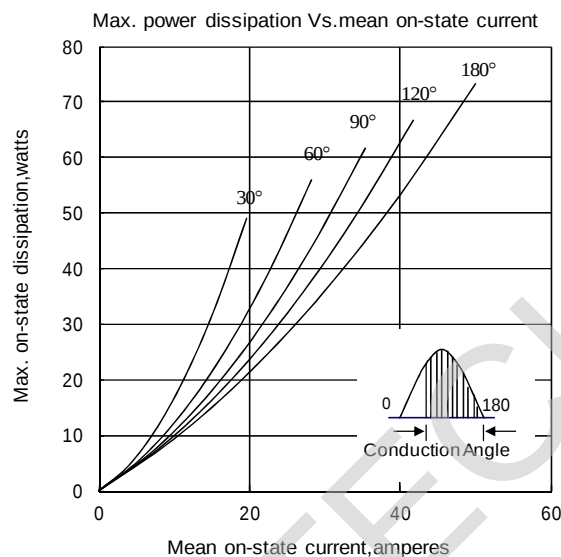


Fig.3

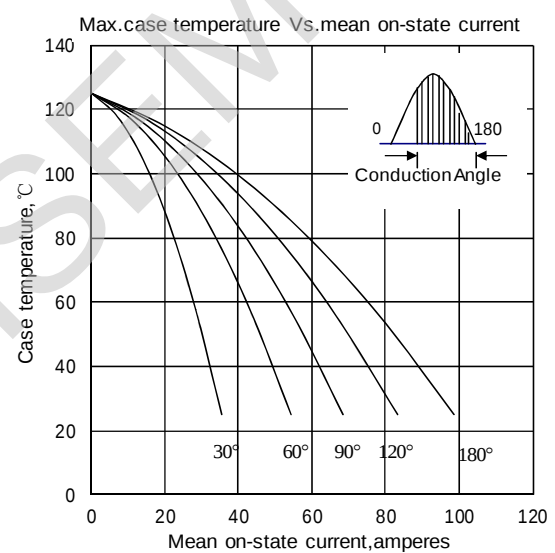


Fig.4

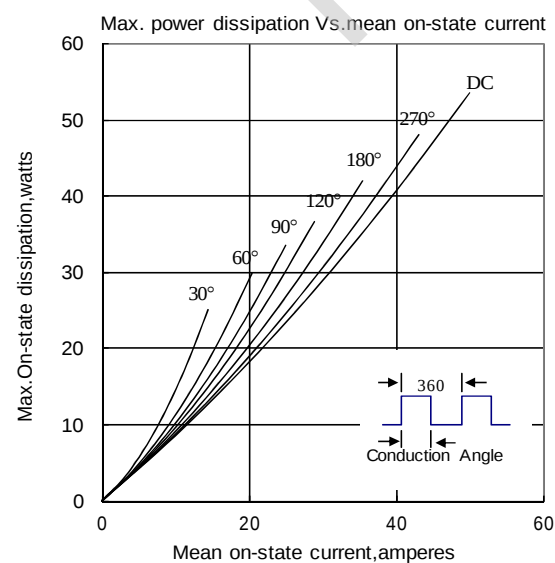


Fig.5

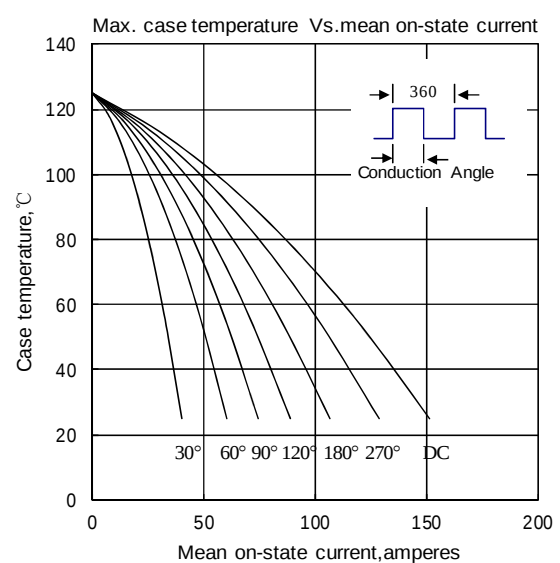


Fig.6

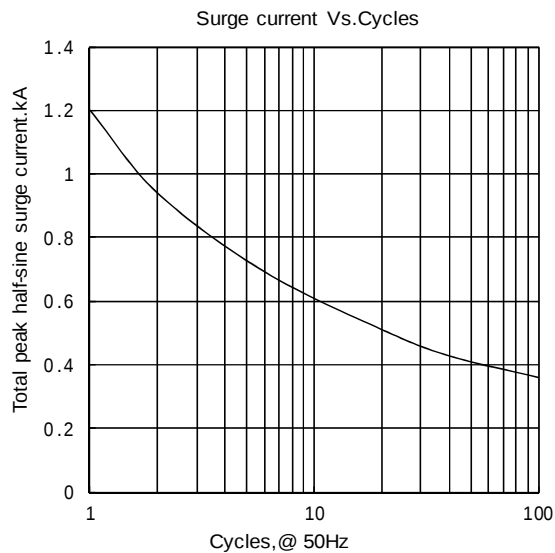


Fig.7

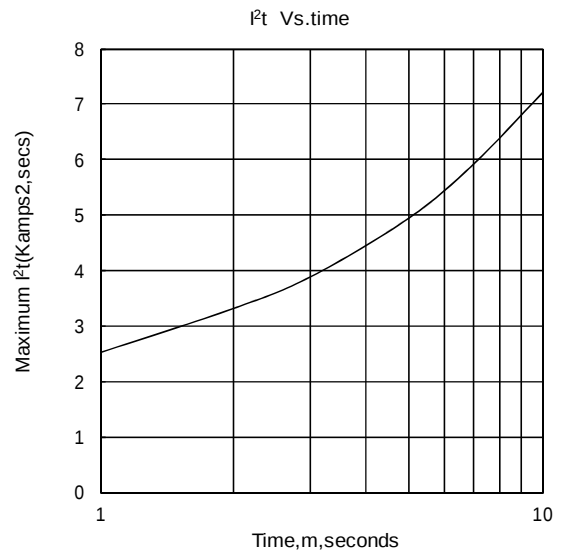


Fig.8

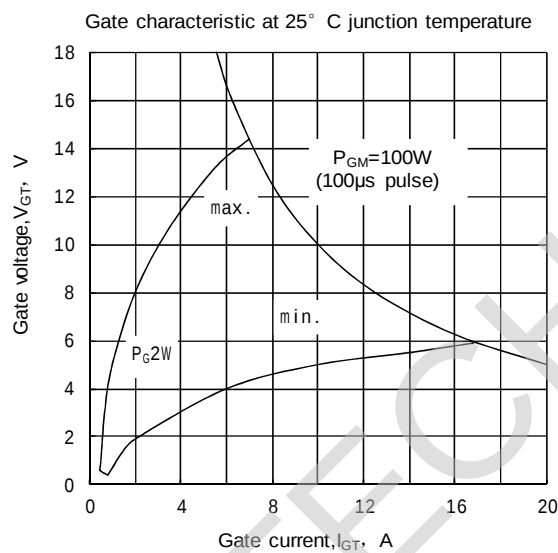


Fig.9

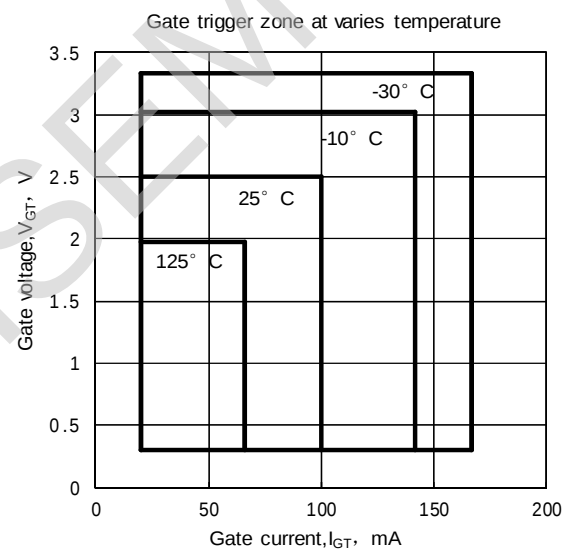


Fig.10

Outline:

