

**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 <sub>RRM</sub> , V <sub>DRM</sub>	Type & Outline	
	MTx	MFx
800V	MTx200-08-213F4	MFx200-08-213F4
1000V	MTx200-10-213F4	MFx200-10-213F4
1200V	MTx200-12-213F4	MFx200-12-213F4
1400V	MTx200-14-213F4	MFx200-14-213F4
1600V	MTx200-16-213F4	MFx200-16-213F4
1800V	MTx200-18-213F4	MFx200-18-213F4

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Single side cooled, T <sub>c</sub> =90°C	125			200	A
I <sub>T(RMS)</sub>	RMS on-state current					314	A
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>	125			20	mA
I <sub>TSM</sub>	Surge on-state current	V <sub>R</sub> =60%V <sub>RRM</sub> , t=10ms half sine	125			5.2	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination		125			135	10 <sup>3</sup> A <sup>2</sup> s
V <sub>TO</sub>	Threshold voltage		125			0.80	V
r <sub>T</sub>	On-state slope resistance					1.15	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =600A	25			1.62	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t <sub>r</sub> ≤0.5μs Repetitive	125			100	A/μs
I <sub>GT</sub>	Gate trigger current	V <sub>A</sub> =12V, I <sub>A</sub> =1A	25	30		150	mA
V <sub>GT</sub>	Gate trigger voltage			0.8		2.5	V
I <sub>H</sub>	Holding current			10		180	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125			0.2	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine, Single side cooled per chip				0.13	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	At 180° sine, Single side cooled per chip				0.10	°C/W
F <sub>m</sub>	Terminal connection torque(M6)			4.5		6.0	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T <sub>vj</sub>	Junction temperature			-40		125	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight					280	g
Outline	213F4						

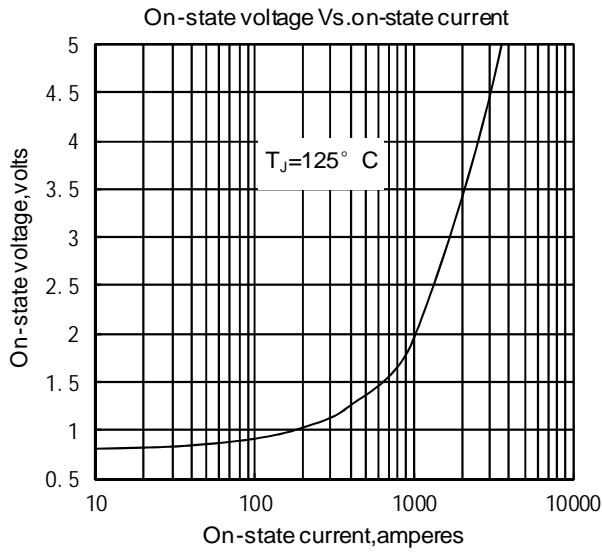


Fig.1

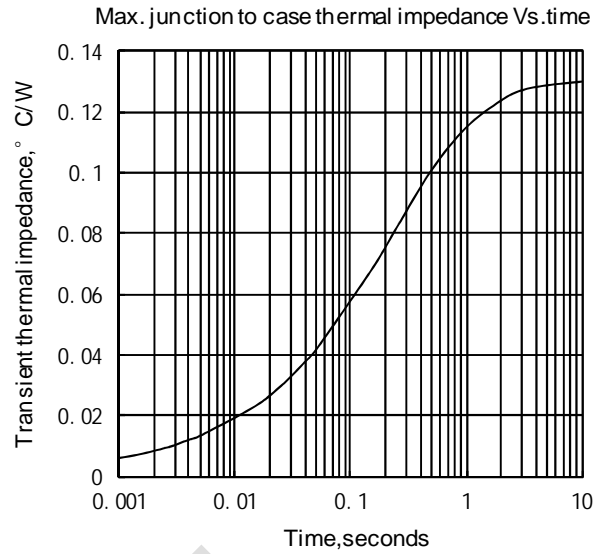


Fig.2

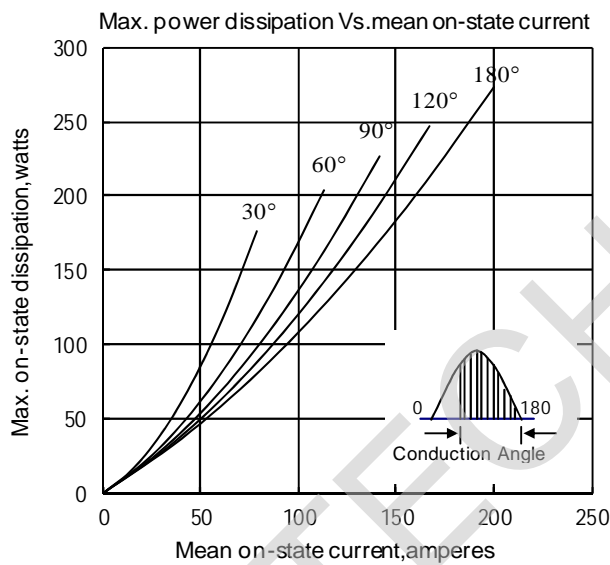


Fig.3

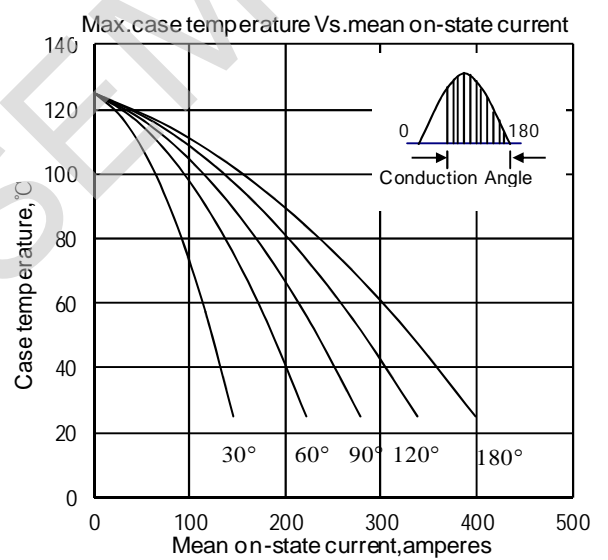


Fig.4

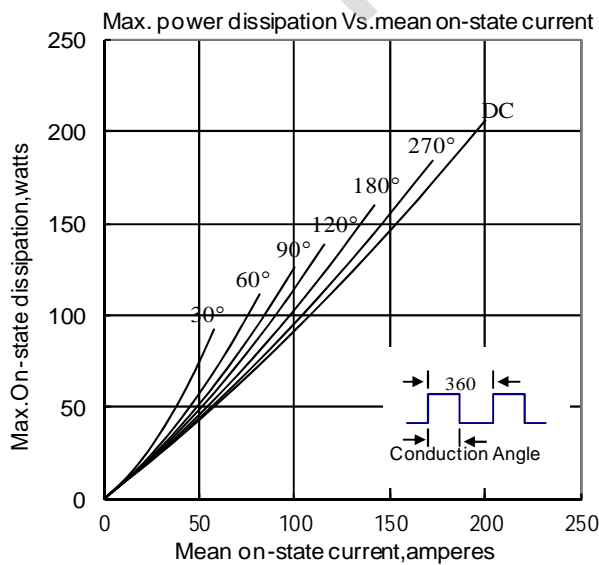


Fig.5

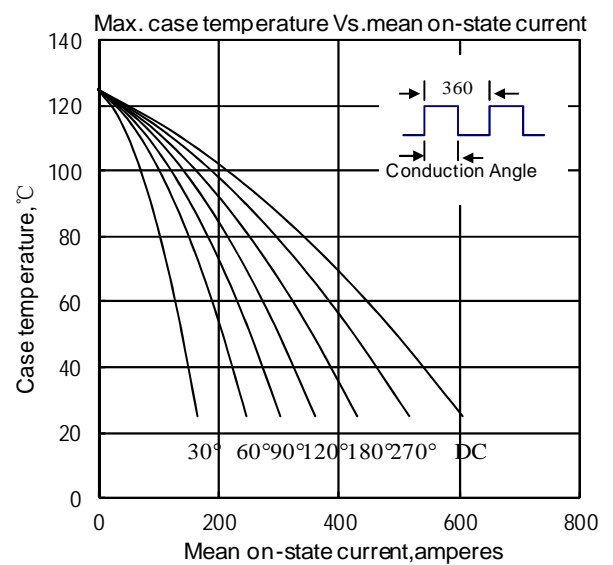


Fig.6

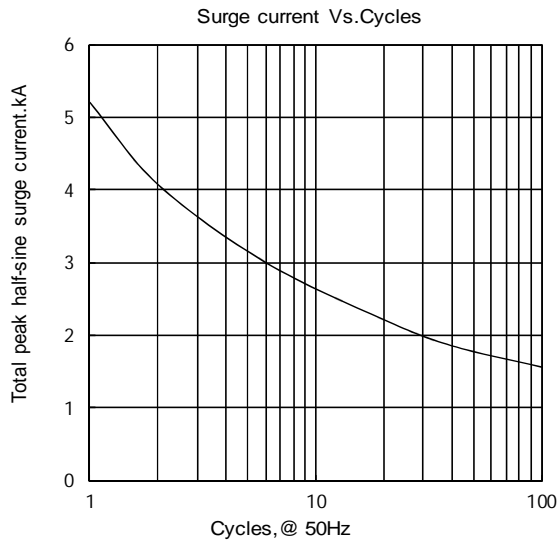


Fig.7

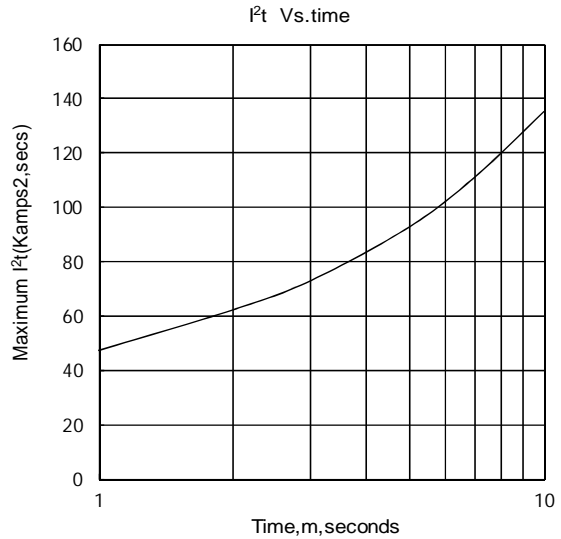


Fig.8

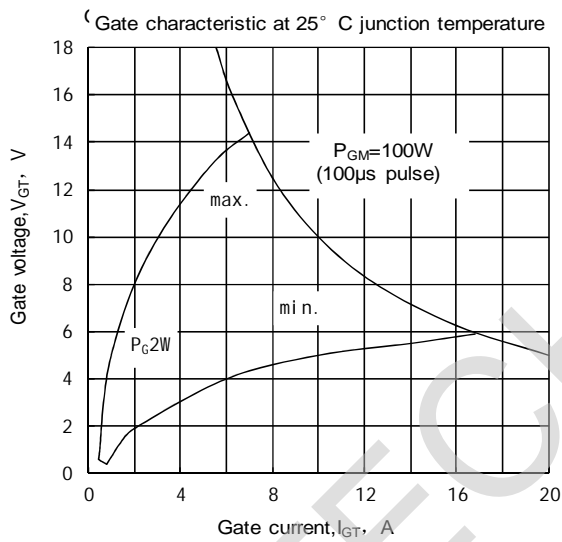


Fig.9

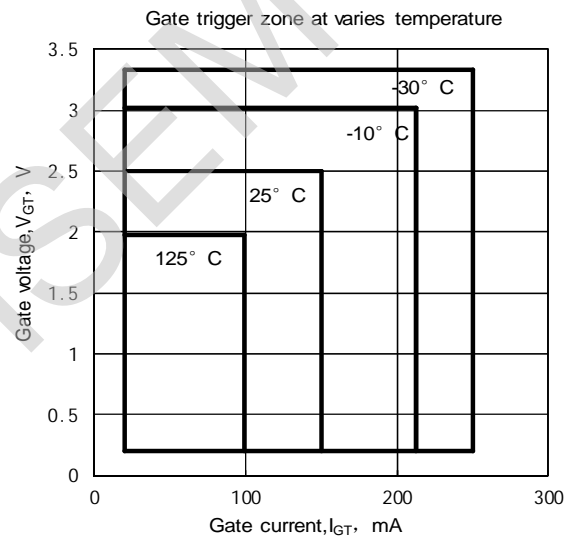
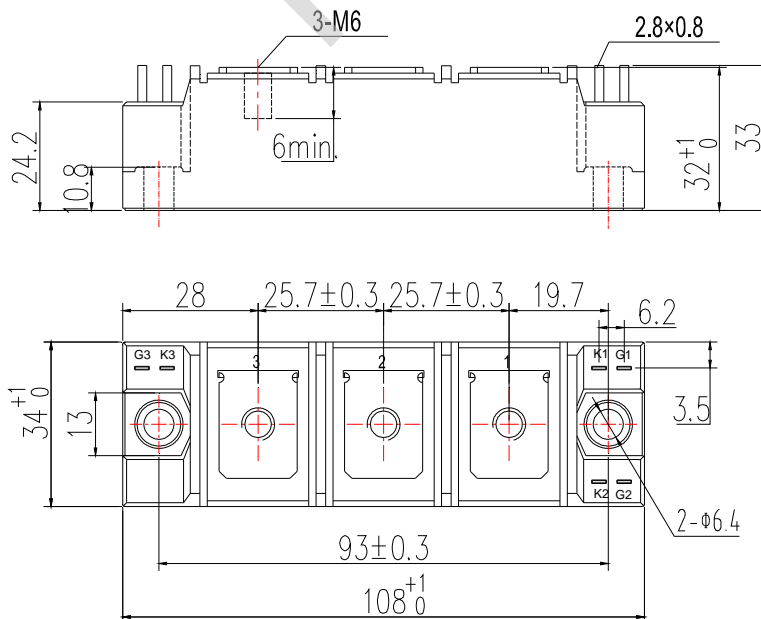


Fig.10

Outline:



Unmarked dimensional tolerance: ±0.5mm

