

### Features:

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

### Typical Applications

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

$I_{T(AV)}$       **250 A**  
 $V_{DRM}/V_{RRM}$     **800~1800 V**  
 $I_{TSM}$              **$6.7 A \times 10^3$**   
 $I^2t$                  **$224 A^2 S \cdot 10^3$**



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			250	A
I <sub>T(RMS)</sub>	RMS on-state current		125			393	A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak off-state voltage Repetitive peak reverse voltage	V <sub>DRM</sub> &V <sub>RRM</sub> tp=10ms V <sub>DsM</sub> &V <sub>RSM</sub> = V <sub>DRM</sub> &V <sub>RRM</sub> +100V respectively	125	800		1800	V
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	10ms half sine wave	125			6.7	KA
I <sup>2</sup> t	I <sup>2</sup> T for fusing coordination	V <sub>R</sub> =60%V <sub>RRM</sub>				224	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage		125			0.80	V
r <sub>T</sub>	On-state slop resistance					1.02	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =750A	25			1.65	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			1.0		2.5	V
I <sub>H</sub>	Holding current			20		100	mA
V <sub>GD</sub>	Non-trigger gate voltage	At 67%V <sub>DRM</sub>	125	0.2			V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	Single side cooled				0.100	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
F <sub>m</sub>	Thermal connection torque(M8)				12		N·m
	Mounting torque(M6)				6		N·m
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				680		g
Outline	404F4/407F2						

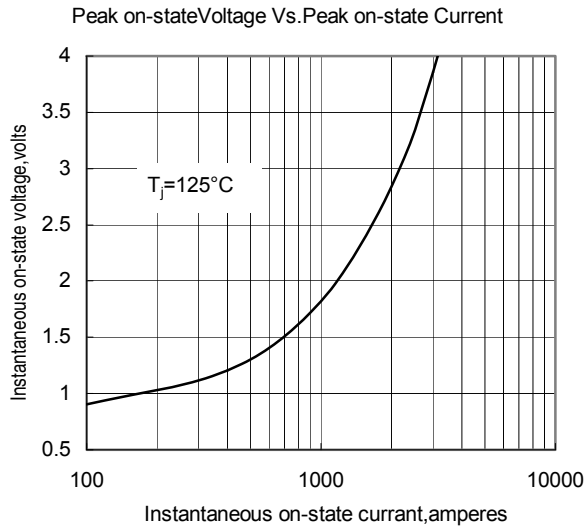


Fig.1

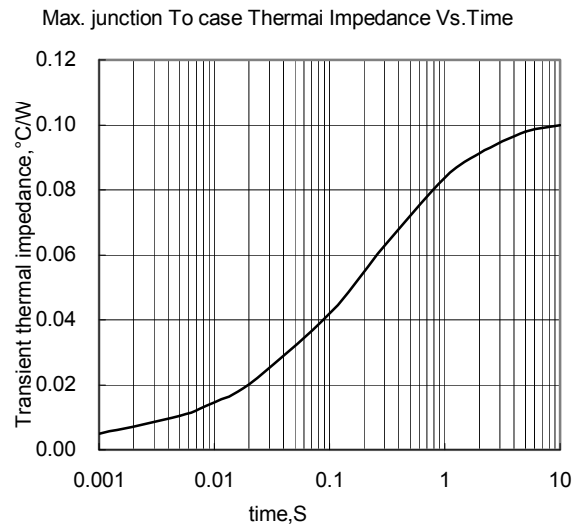


Fig.2

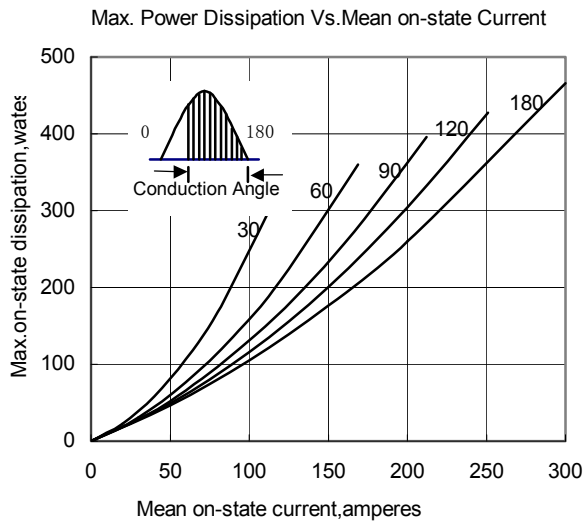


Fig.3

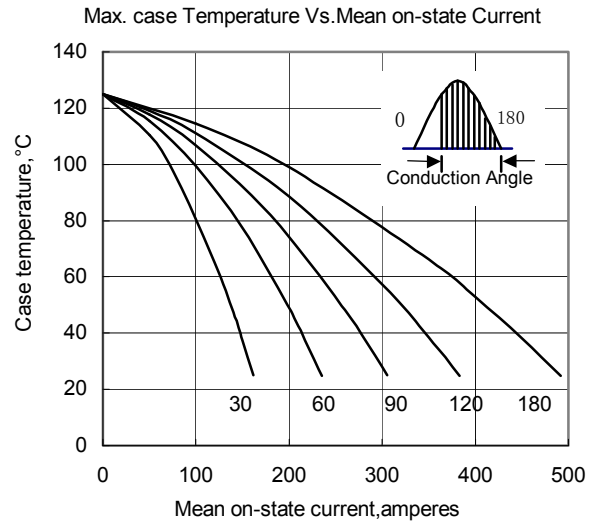


Fig.4

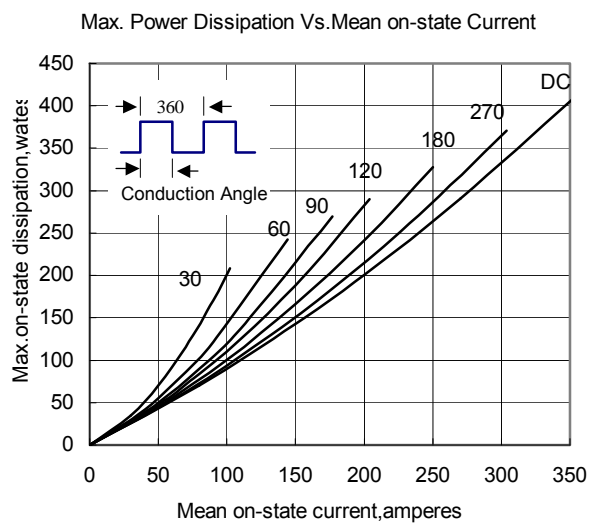


Fig.5

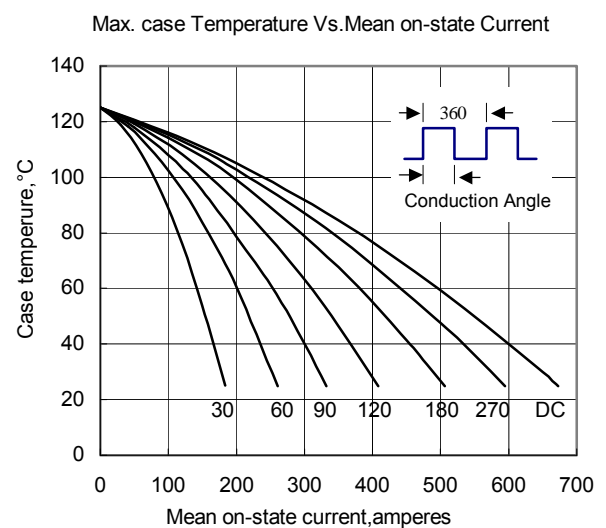


Fig.6

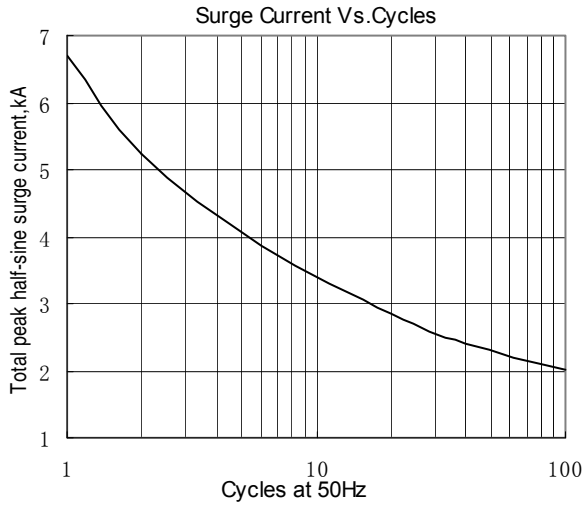


Fig.7

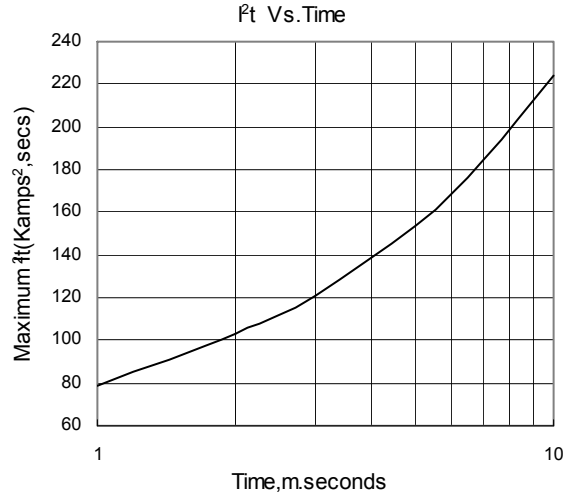


Fig.8

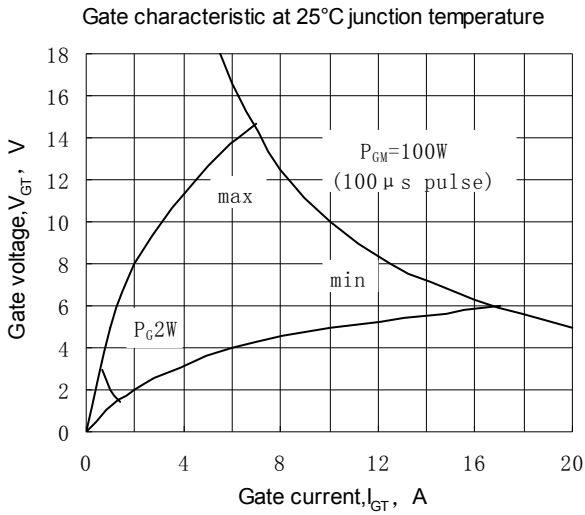


Fig.9

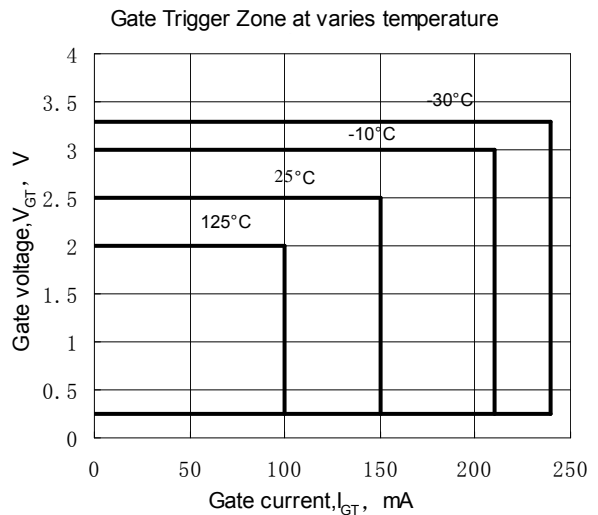


Fig.10

**Outline:**

