

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

$I_{T(AV)}$ 50 A
 V_{DRM}/V_{RRM} 800~1800 V
 I_{TSM} 1.2 A $\times 10^3$
 I^2t 7.2 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, $T_c=90^\circ\text{C}$	125			50	A
$I_{T(RMS)}$	RMS on-state current		125			79	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100\text{V}$ respectively	125	800		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			8	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=60\%V_{RRM}$	125			1.20	KA
I^2t	I^2T for fusing coordination					7.2	A 2 s $\times 10^3$
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					5.41	mΩ
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			20		100	mA
V_{GD}	Non-trigger gate voltage	At 67% V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.480	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	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					

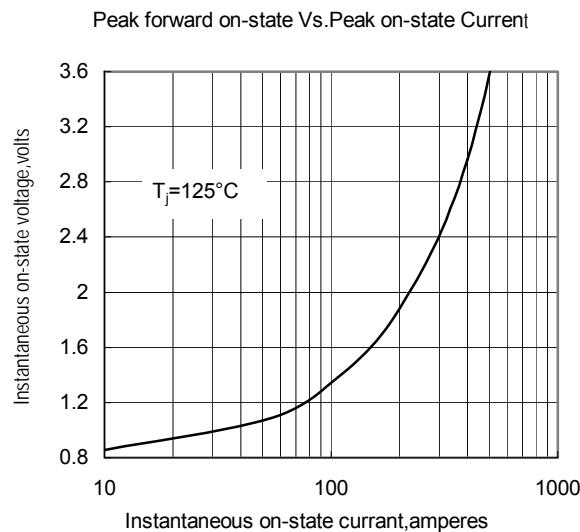


Fig.1

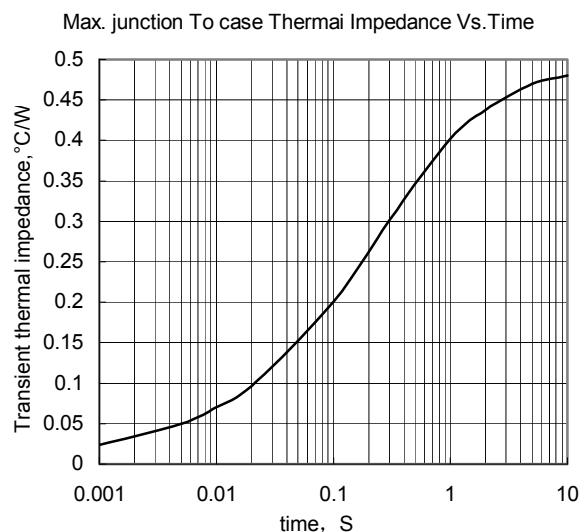


Fig.2

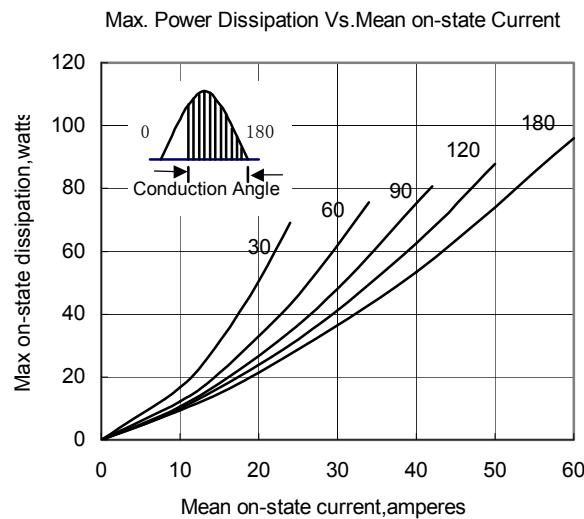


Fig.3

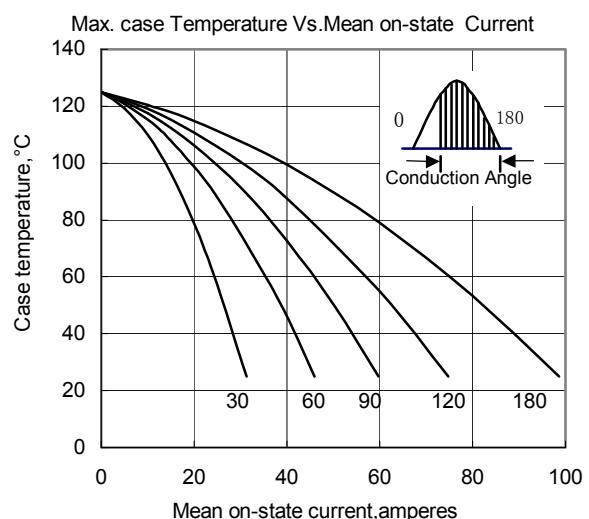


Fig.4

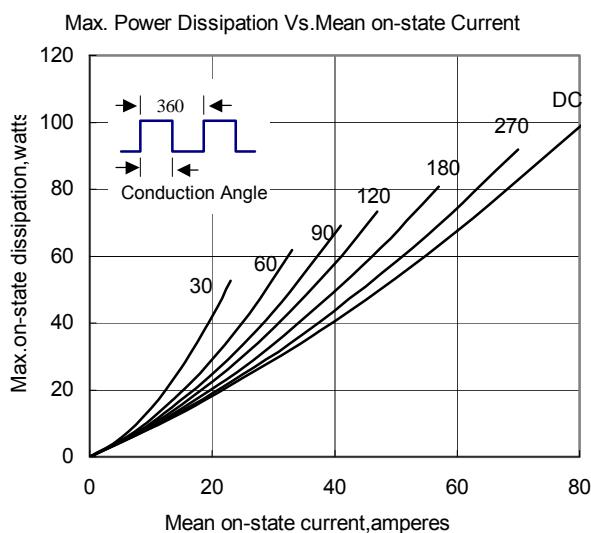


Fig.5

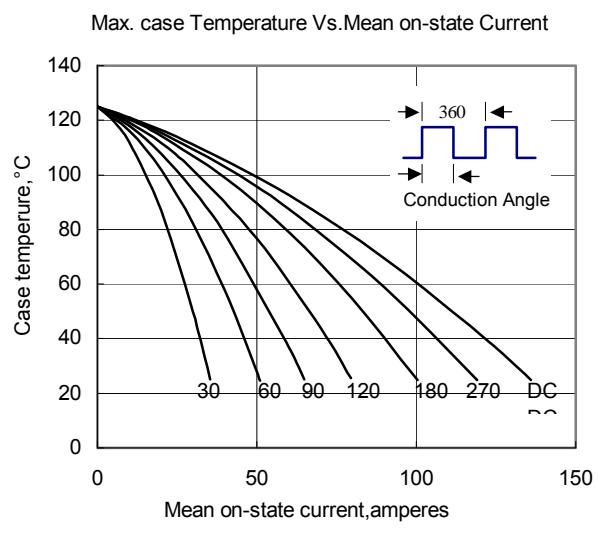


Fig.6

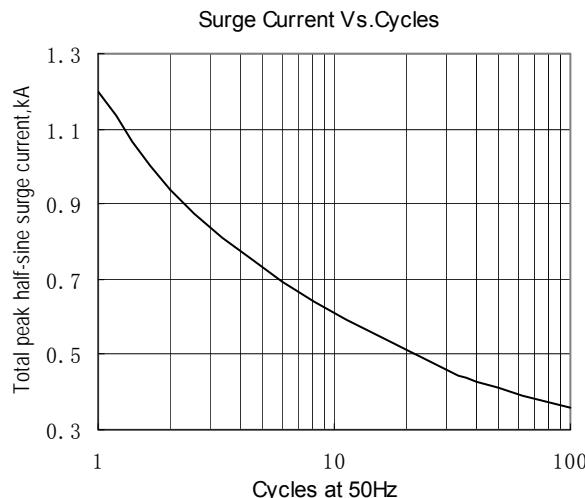


Fig.7

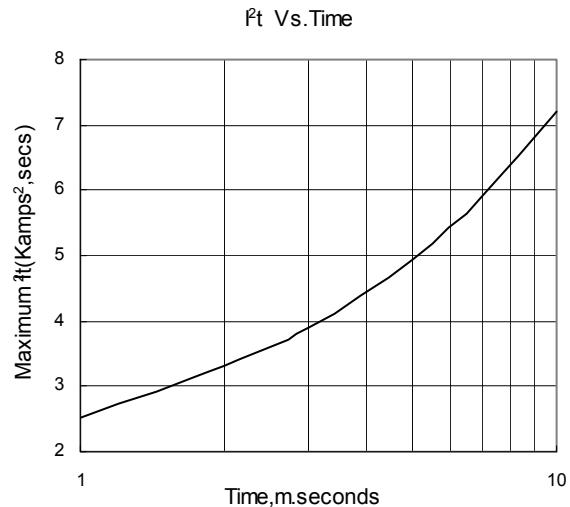


Fig.8

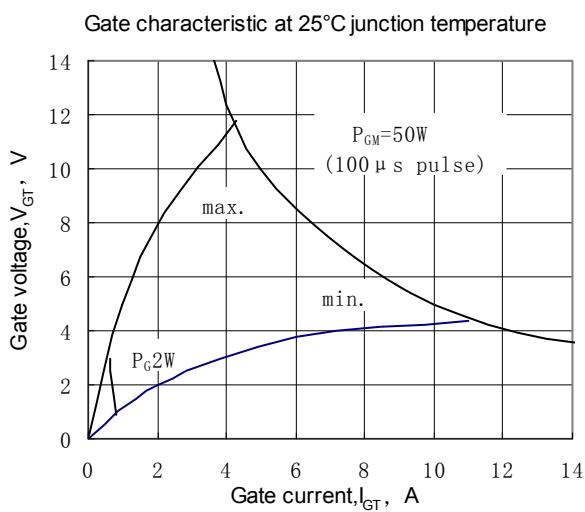


Fig.9

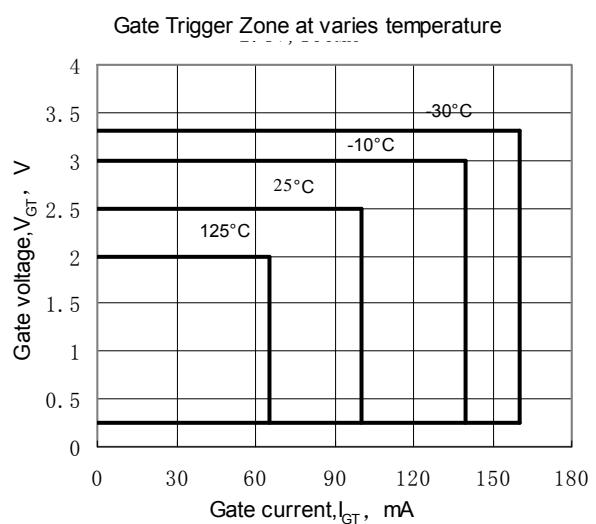
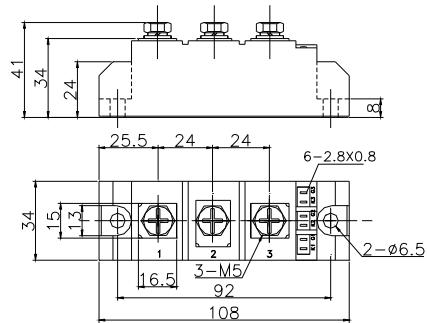


Fig.10

Outline:



208F4

