

Features

- Center amplifying gate
- Metal case with ceramic insulator
- Low on-state and switching losses

Typical Applications

- AC controllers
- DC and AC motor control
- Controlled rectifiers

$I_{T(AV)}$ **850A**
 V_{DRM}/V_{RRM} **400~1000V**
 I_{TSM} **9.1 kA**
 I^2t **414.05 10³A²S**



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _J (°C)	VALUE			UNIT
				Min	Type	Max	
I _{T(AV)}	Mean on-state current	180° half sine wave 50Hz Double side cooled, T _C =70°C				850	
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	400		1000	V
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	125			30	mA
I _{TSM}	Surge on-state current	10ms half sine wave	125			9.1	kA
I ² t	I ² t for fusing coordination	V _R =0.6V _{RRM}				414.05	A ² s*10 ³
V _{TO}	Threshold voltage		125			0.70	V
r _T	On-state slope resistance					0.35	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =1550A, F=7kN	25			1.24	V
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =0.67V _{DRM}	125			1000	V/μs
di/dt	Critical rate of rise of on-state current	V _{DM} = 67%V _{DRM} to 1300A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A	125			100	A/μs
Q _{rr}	Recovery charge	I _{TM} =1000A, tp=2000μs, di/dt=-20A/μs, V _R =50V	125		1030		μC
I _{GT}	Gate trigger current			35		250	mA
V _{GT}	Gate trigger voltage	V _A =12V, I _A =1A	25	0.8		2.5	V
I _H	Holding current			20		200	mA
V _{GD}	Non-trigger gate voltage	V _{DM} =67%V _{DRM}	125	0.3			V
R _{th(j-c)}	Thermal resistance Junction to case	At 180° sine double side cooled				0.045	°C/W
R _{th(c-h)}	Thermal resistance case to heat sink	Clamping force 7kN				0.010	
F _m	Mounting force			5.3		10	kN
T _{stg}	Stored temperature			-40		140	°C
W _t	Weight				80		g
Outline	P02						

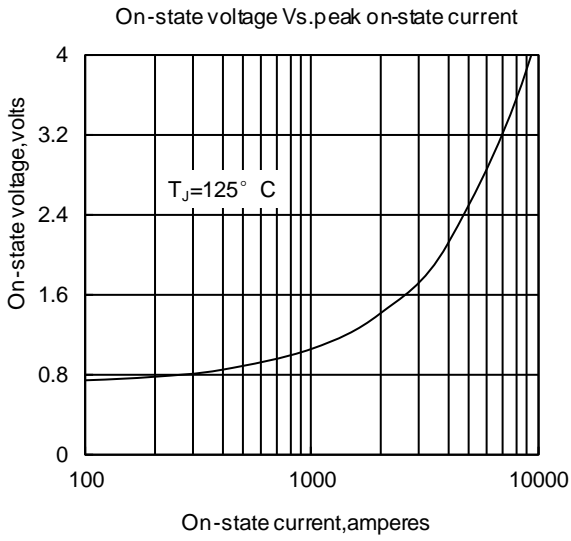


Fig1

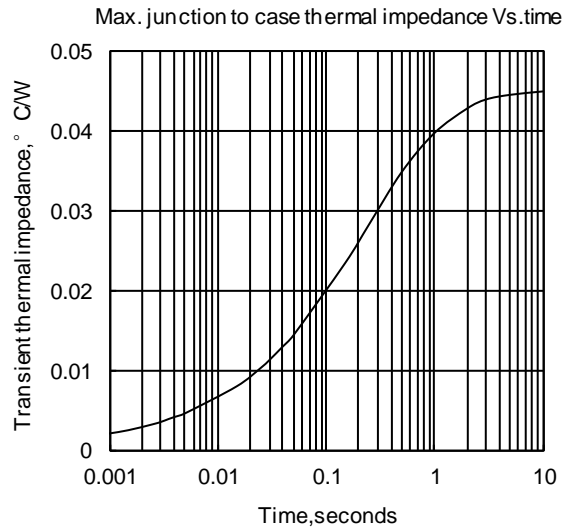


Fig2

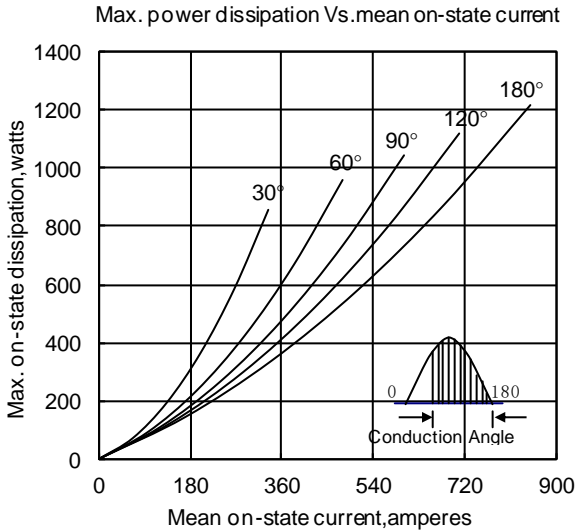


Fig3

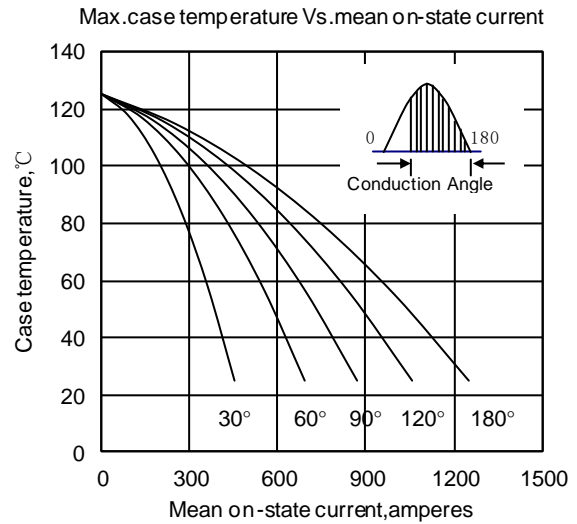


Fig4

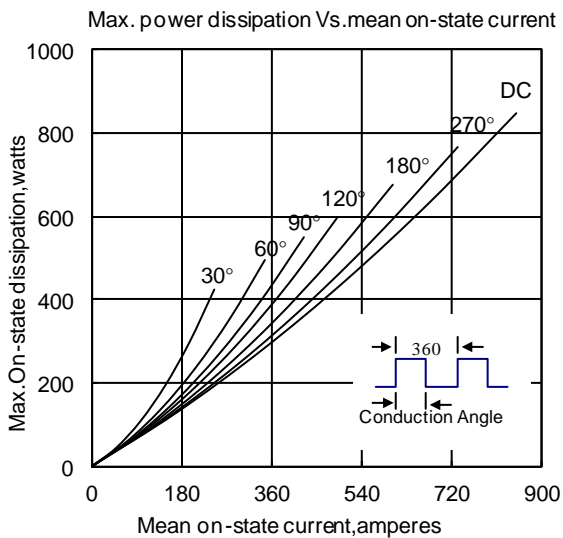


Fig5

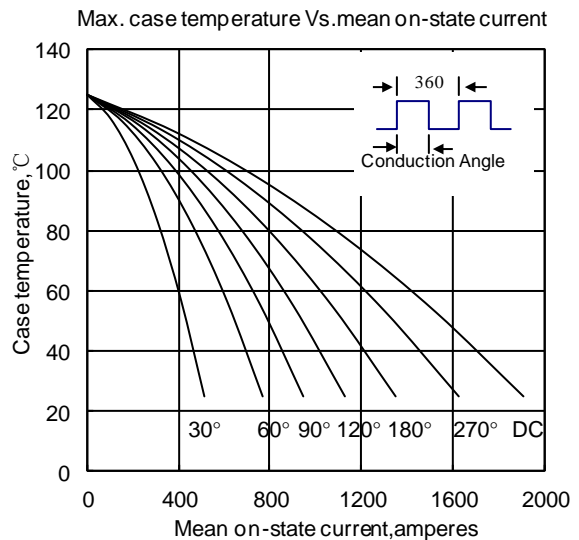


Fig6

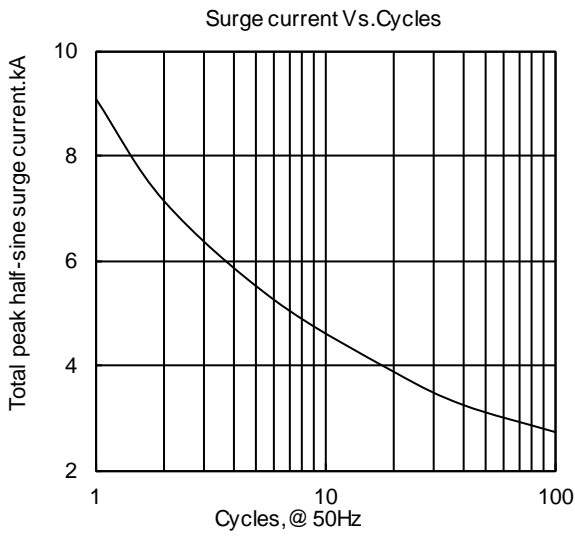


Fig7

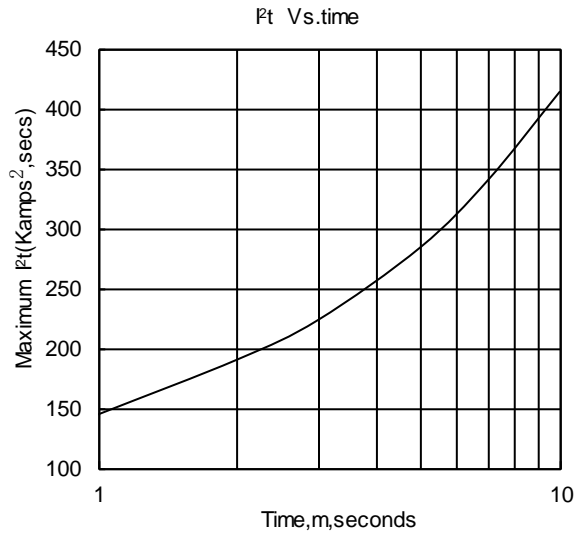


Fig8

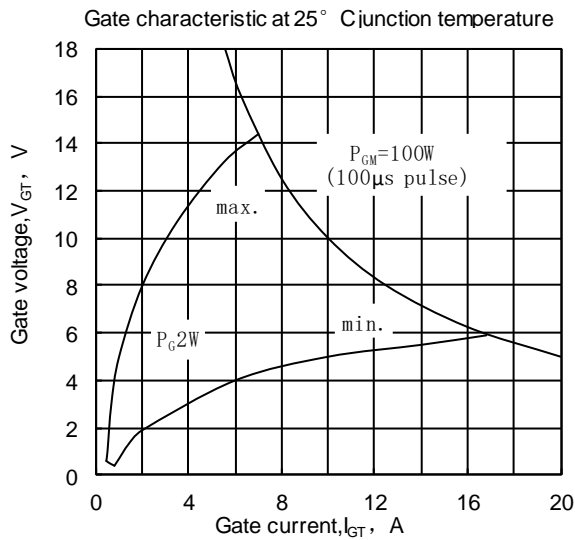


Fig9

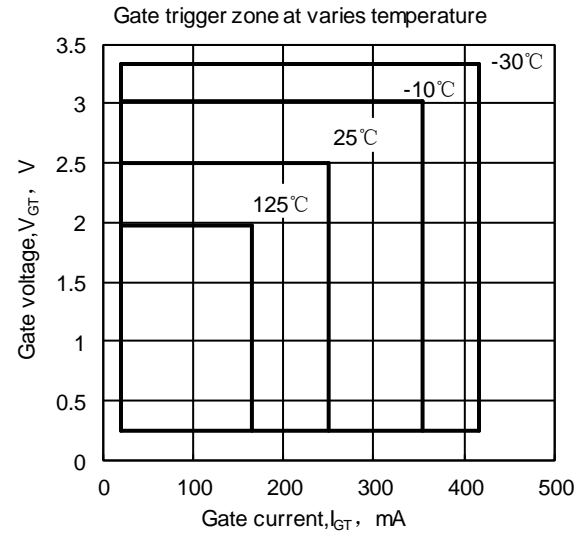


Fig10

