

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

$I_{T(AV)}$ 2150A
 V_{DRM}/V_{RRM} 200~600V
 I_{TSM} 30 kA
 I^2t 4500 10^3A^2S



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	125			2150	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	200		600	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			80	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			30	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$					4500	A ² s*10 ³
V_{TO}	Threshold voltage			125			0.75	V
r _r	On-state slope resistance						0.10	mΩ□
V_{TM}	Peak on-state voltage	$I_{TM}=3000A, F=24kN$		125			1.05	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	$V_{DM}=67\%V_{DRM}$ to2500A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A		125			100	A/μs
Q _{rr}	Recovery charge	$I_{TM}=2000A, tp=2000μs, di/dt=-20A/μs,$ $V_R=50V$		125		1200		μC
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$		25	40		300	mA
V_{GT}	Gate trigger voltage				0.8		3.0	V
I_H	Holding current				20		300	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 Clamping force 24kN					0.020	°C /W
R _{th(c-h)}	Thermal resistance case to heatsink						0.005	
F _m	Mounting force				19		26	kN
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					290		g
Outline	P05							

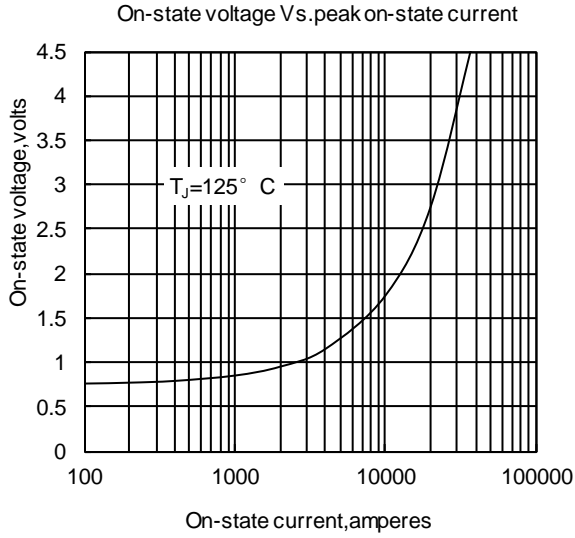


Fig1

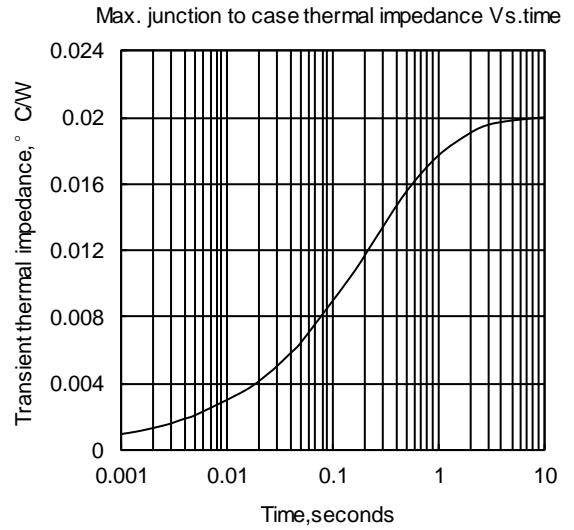


Fig2

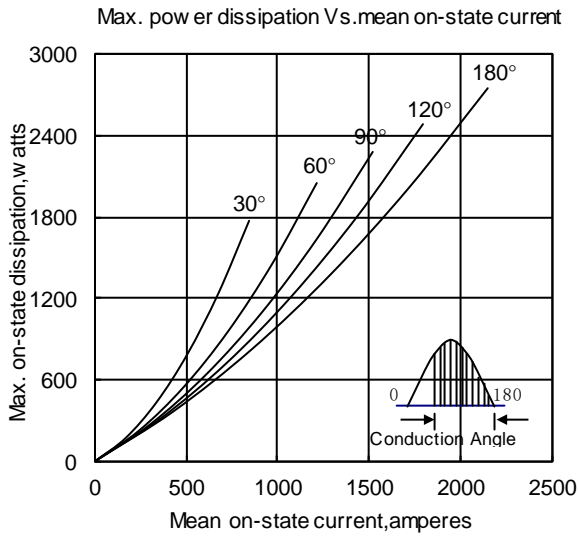


Fig3

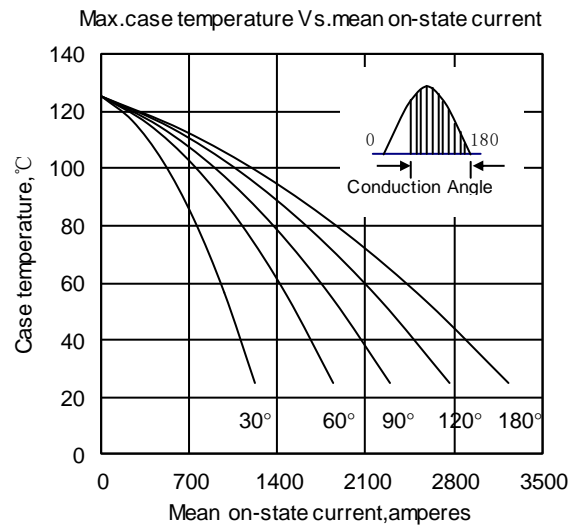


Fig4

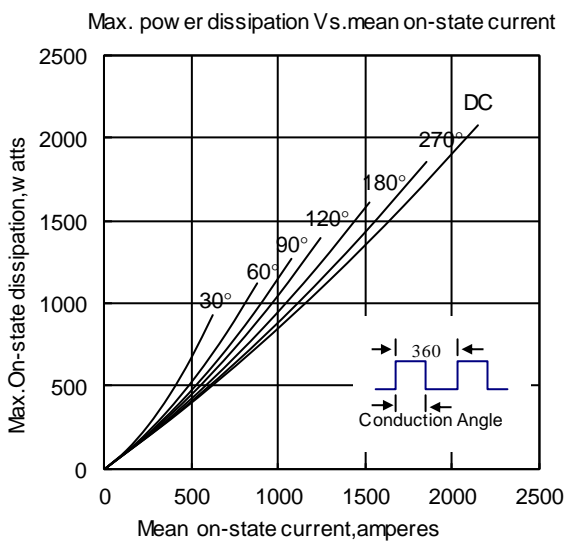


Fig5

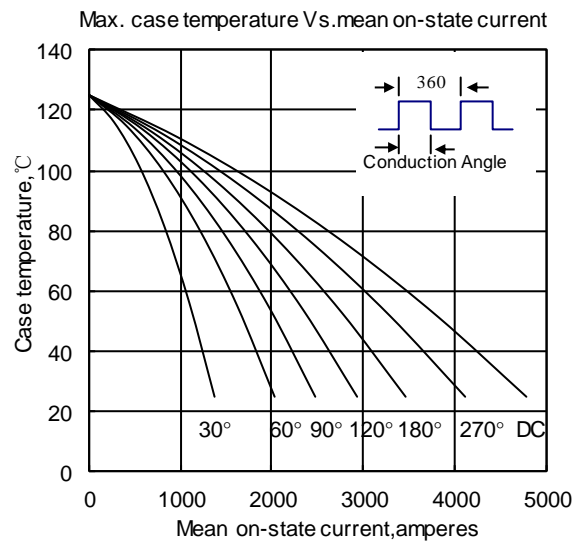


Fig6

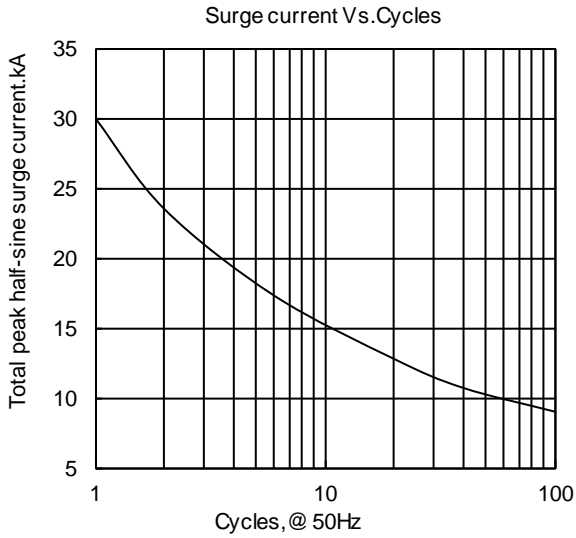


Fig7

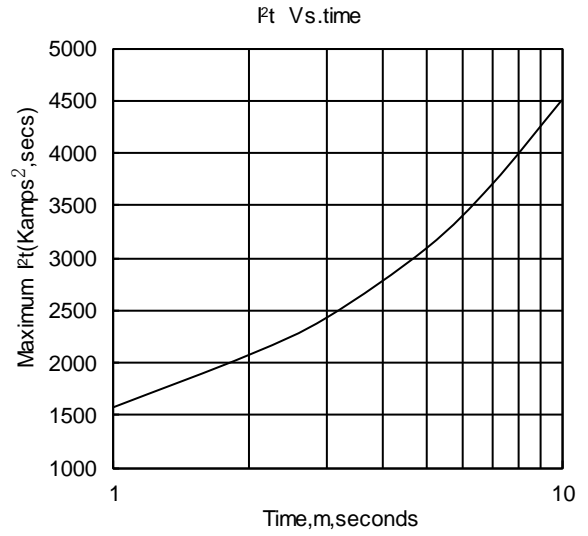


Fig8

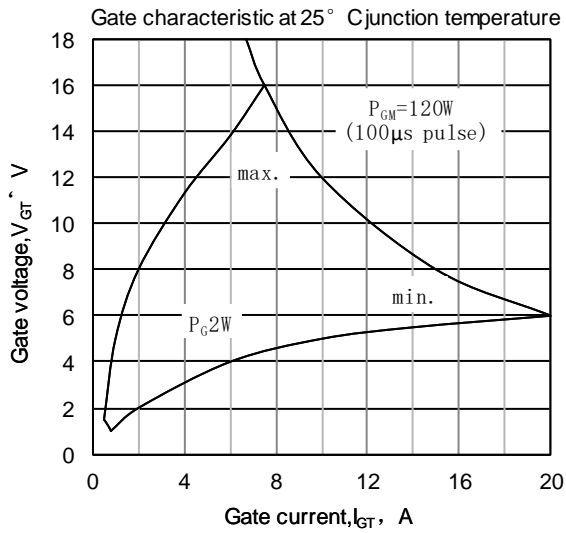


Fig9

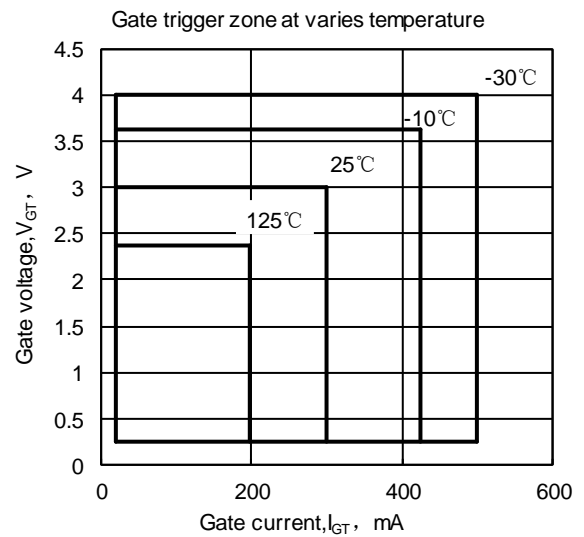


Fig10

