

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

$I_{T(AV)}$	1180A
V_{DRM}/V_{RRM}	1900~3000V
I_{TSM}	16 kA
I^2t	1620 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	125			1180	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	1900		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			100	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125			16	kA
I^2t	I^2t for fusing coordination					1280	A ² s*10 ³
V_{TO}	Threshold voltage		125			0.97	V
r_T	On-state slope resistance					0.27	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=3200A, F=24kN$	25			2.15	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	$V_{DM}=67\%V_{DRM}$ to1500A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$	125			200	A/μs
Q_{rr}	Recovery charge	$I_{TM}=2000A, tp=2000\mu s, di/dt=-20A/\mu s,$ $V_R=50V$	125		1600		μC
I_{GT}	Gate trigger current			40		200	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$	25	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				0.019	°C/W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Clamping force 24.0kN				0.005	
F_m	Mounting force			19		26	kN
T_{stg}	Stored temperature			-40		+125	°C
W_t	Weight				380		g
Outline	P27						

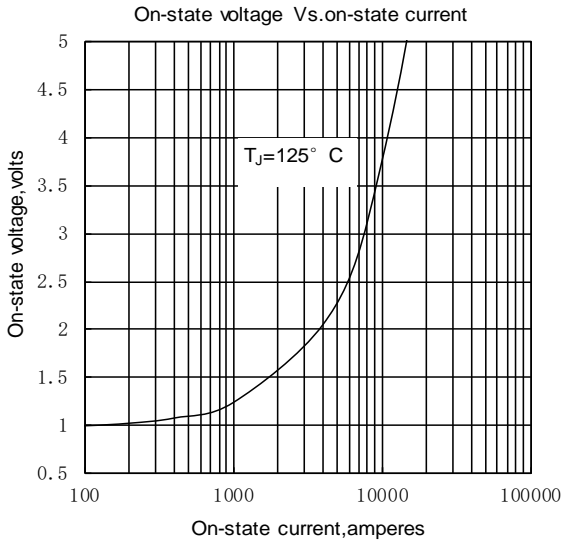


Fig.1

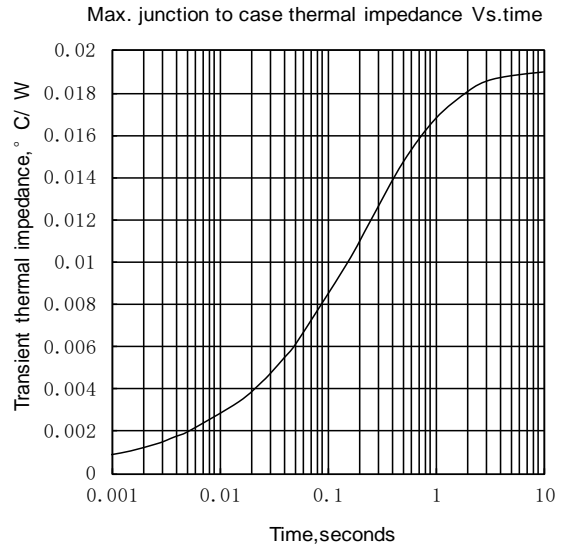


Fig.2

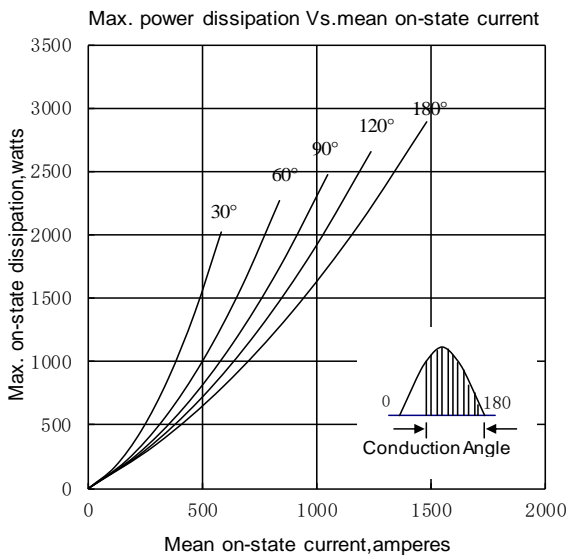


Fig.3

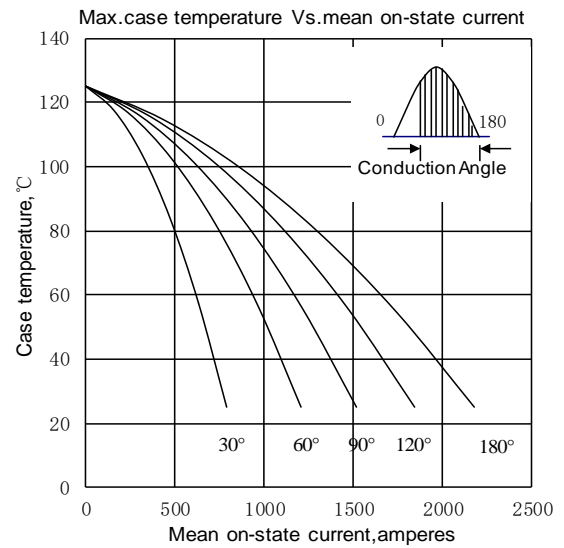


Fig.4

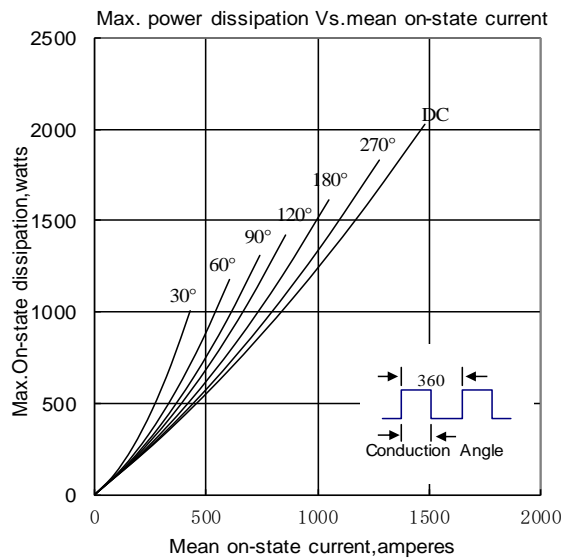


Fig.5

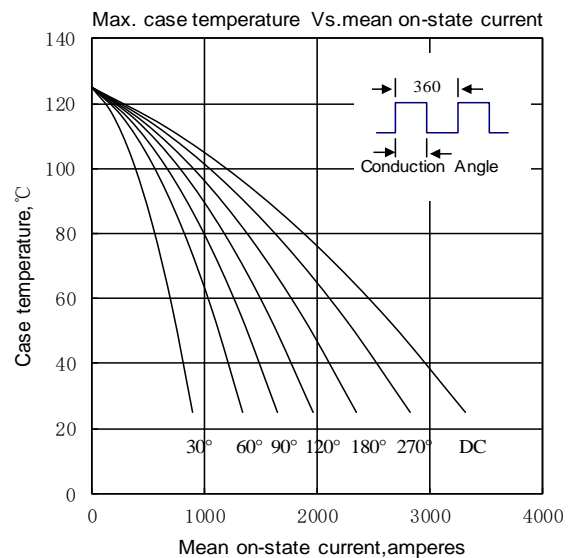


Fig.6

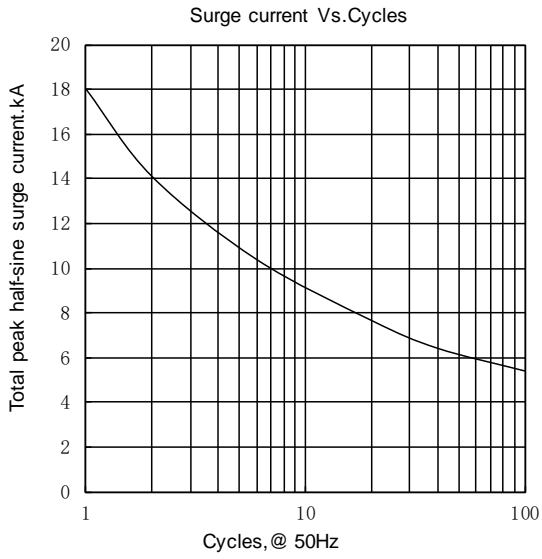


Fig.7

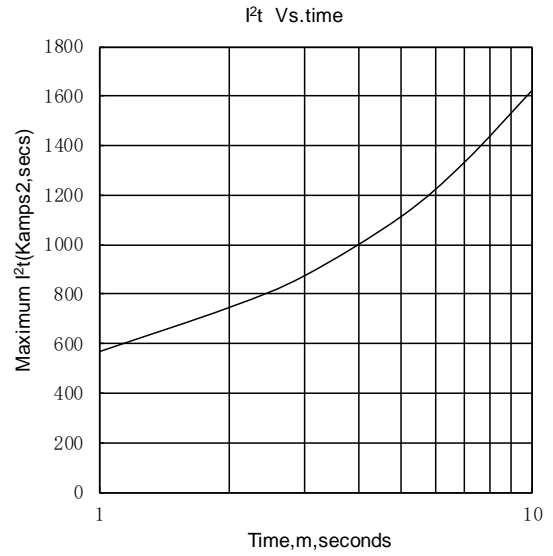


Fig.8

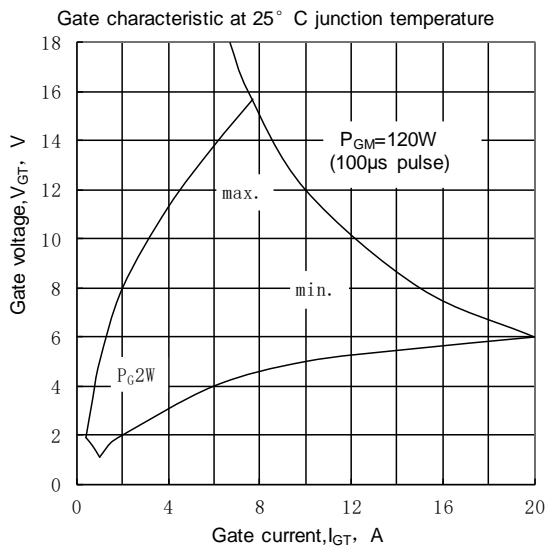


Fig.9

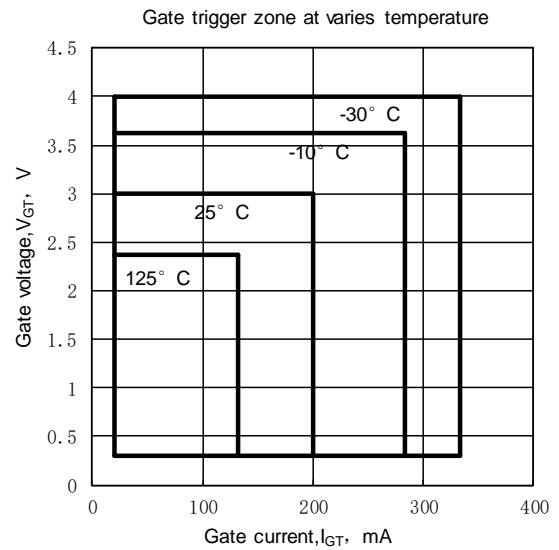


Fig.10

