

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 ≤0.5μs I _{GM} =1.5A	125			200	A/μs
Q _{rr}	Recovery charge	I _{TM} =2000A, tp=2000μs, di/dt=-20A/μs, V _R =50V	125		1600		μC
I _{GT}	Gate trigger current		25	40		200	mA
V _{GT}	Gate trigger voltage	V _A =12V, I _A =1A		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	DC double side cooled Clamping force 24.0kN				0.019	°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		+125	°C
W _t	Weight				380		g
Outline	P27						

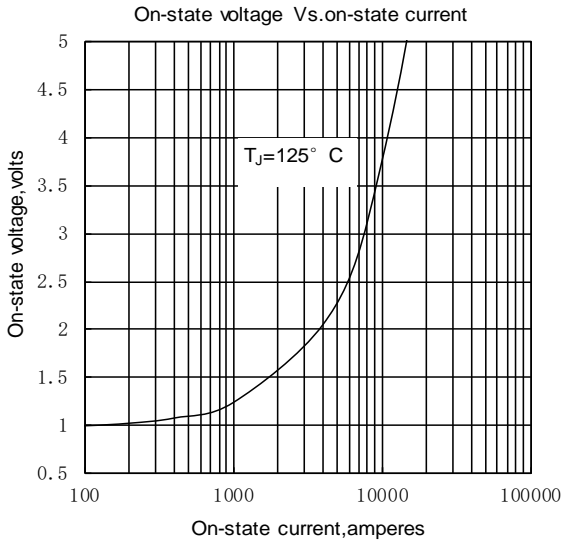


Fig.1

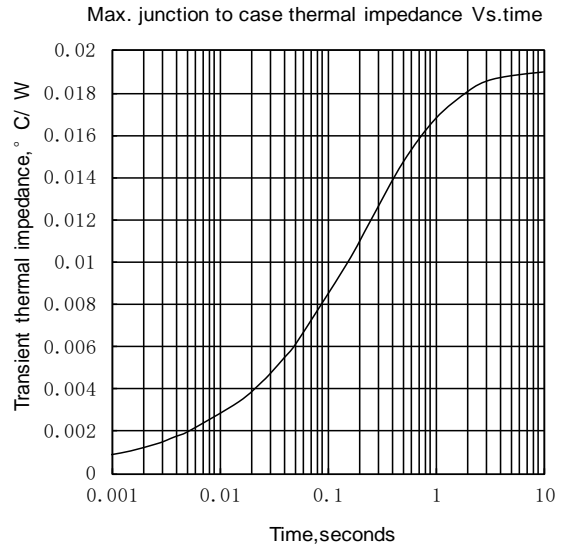


Fig.2

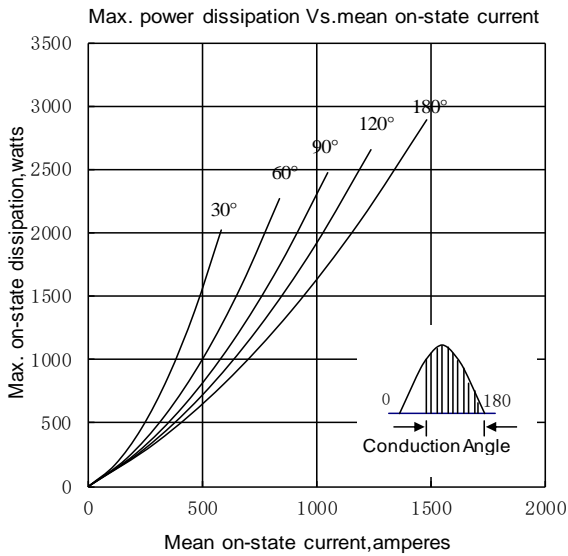


Fig.3

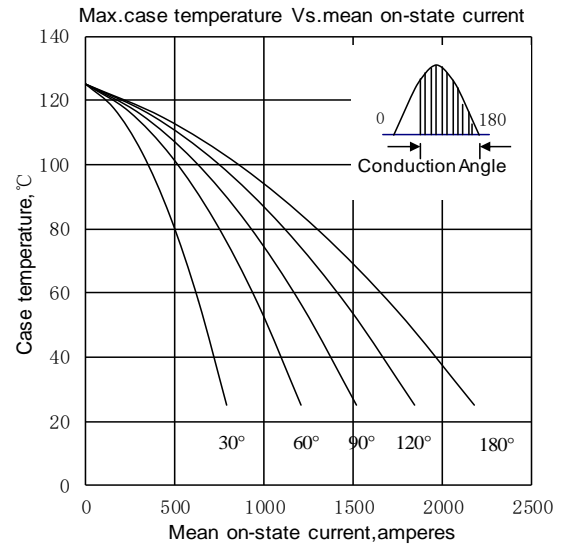


Fig.4

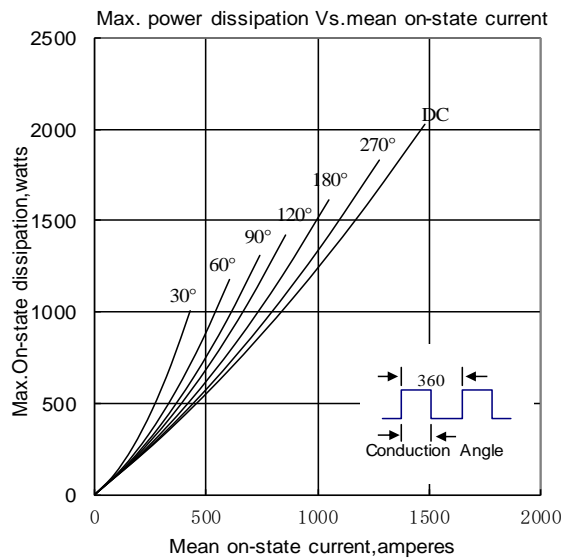


Fig.5

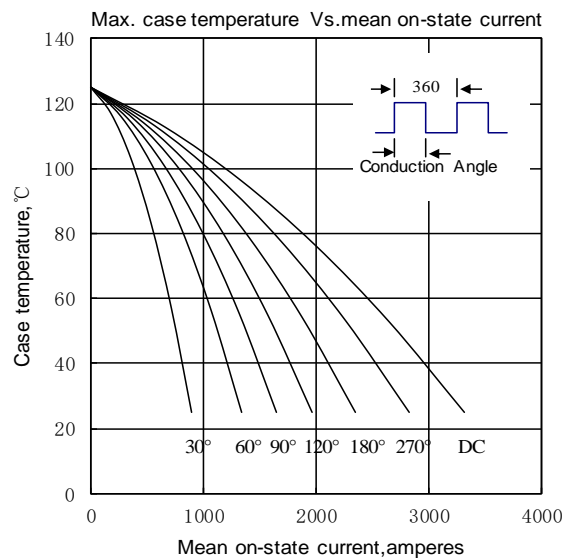


Fig.6

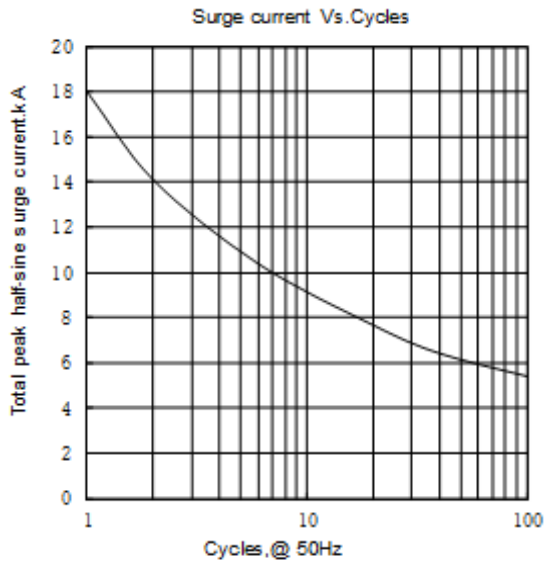


Fig. 7

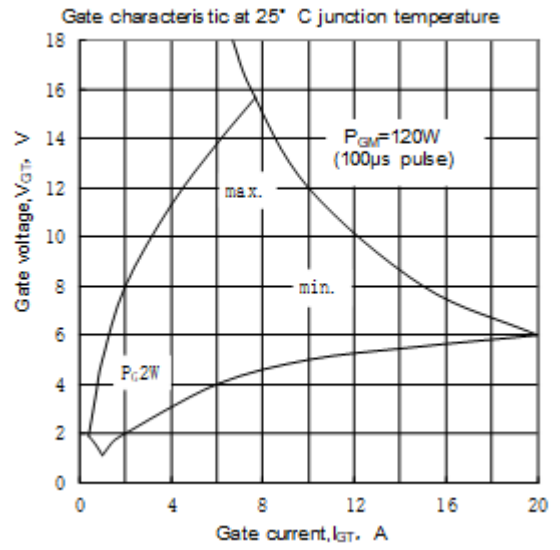


Fig. 8

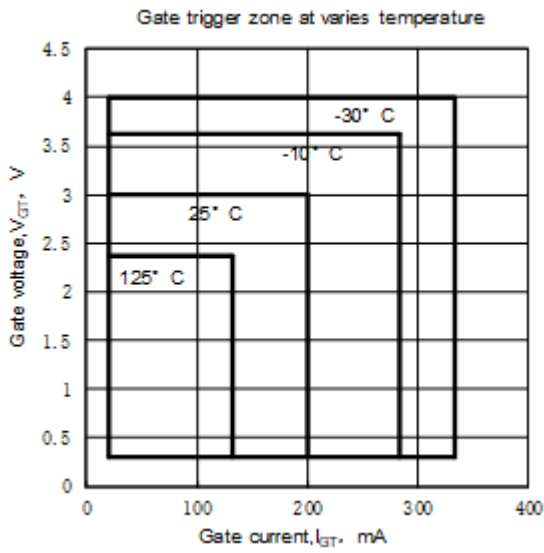
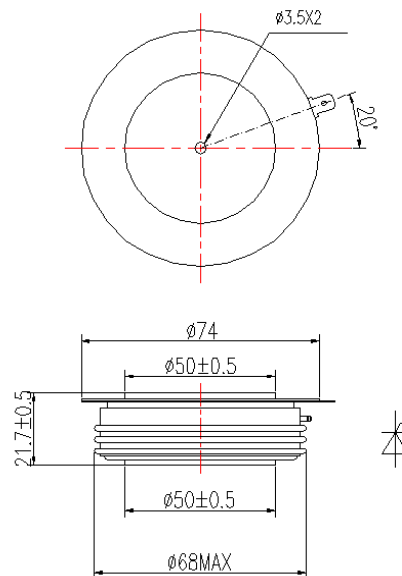


Fig. 9



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