

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

$I_{T(AV)}$ **670A**
 V_{DRM}/V_{RRM} **1100~1800V**
 I_{TSM} **10 kA**
 I^2t **500 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			670	A
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	1100		1800	V
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	125			40	mA
I _{TSM}	Surge on-state current	10ms half sine wave, V _R =0.6V _{RRM}	125			10	kA
I ² t	I ² t for fusing coordination					500	A ² s*10 ³
V _{TO}	Threshold voltage		125			0.86	V
r _T	On-state slope resistance					0.42	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =1500A, F=15.0kN	25			1.96	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 800A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A Repetitive	125			150	A/μs
Q _{rr}	Recovery charge	I _{TM} =500A, tp=2000μs, di/dt=-20A/μs, V _R =50V	125		1000		μC
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25	35		150	mA
V _{GT}	Gate trigger voltage			0.8		2.5	V
I _H	Holding current			20		200	mA
V _{GD}	Non-trigger gate voltage	V _{DM} =0.67V _{DRM}	125	0.3			V
R _{th(j-c)}	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 15kN				0.038	°C/W
R _{th(c-h)}	Thermal resistance case to heat sink					0.010	
F _m	Mounting force			10		20	kN
T _{stg}	Stored temperature			-40		125	°C
W _t	Weight				135		g
Outline	P03						

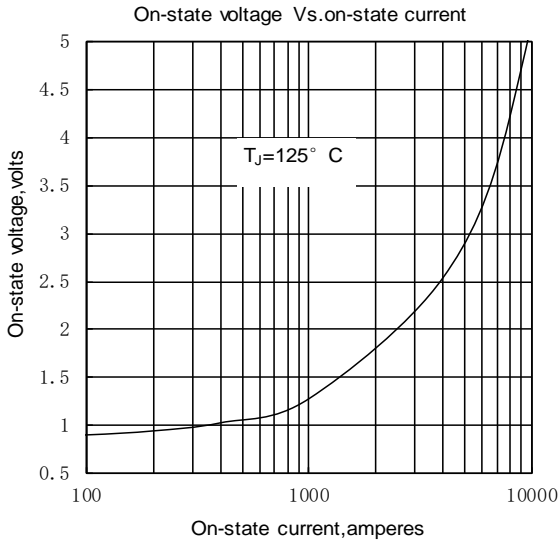


Fig.1

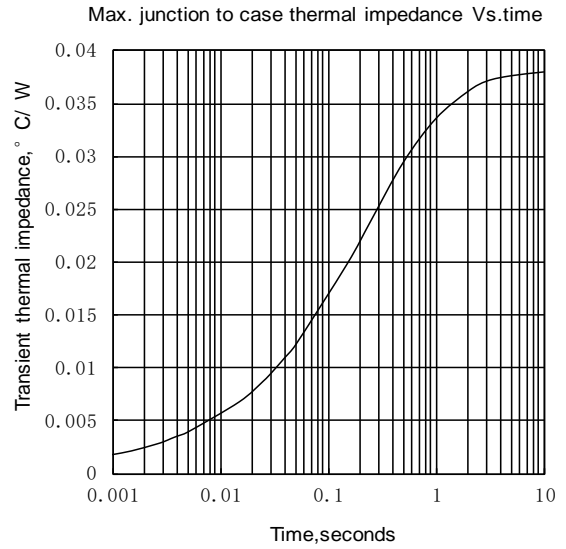


Fig.2

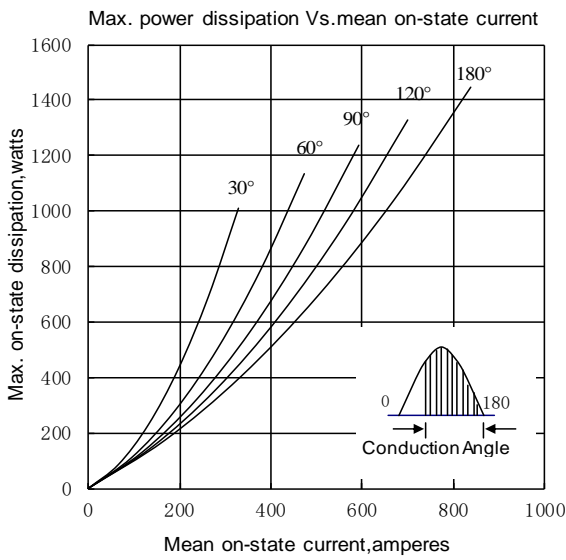


Fig.3

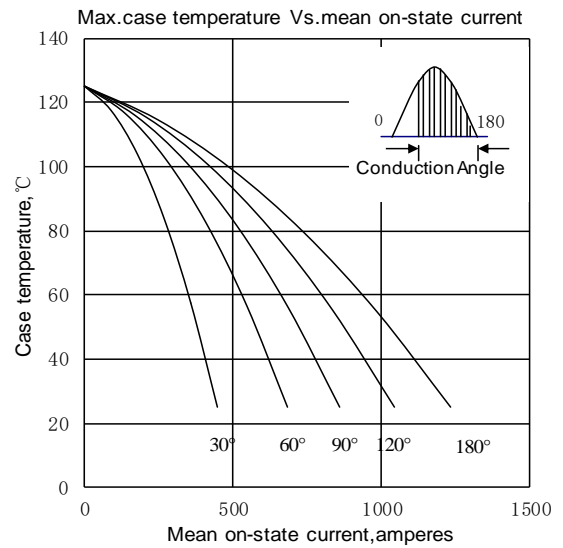


Fig.4

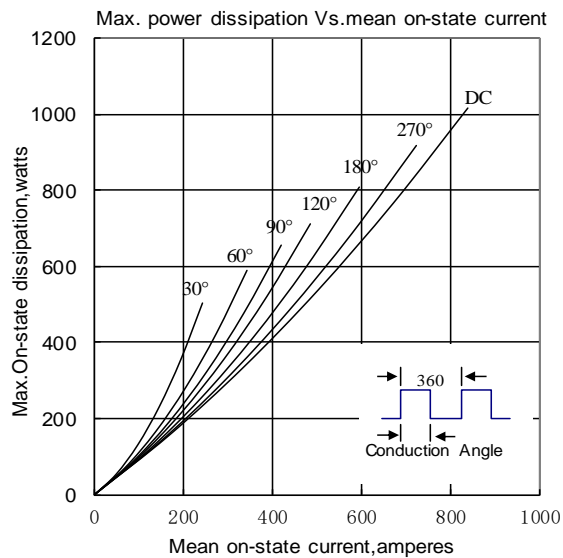


Fig.5

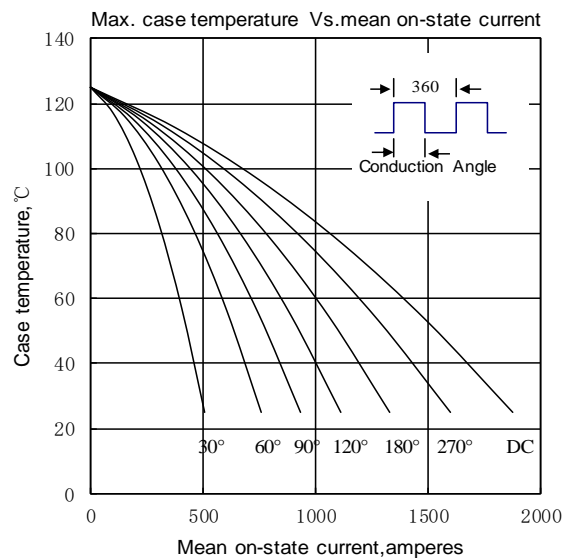


Fig.6

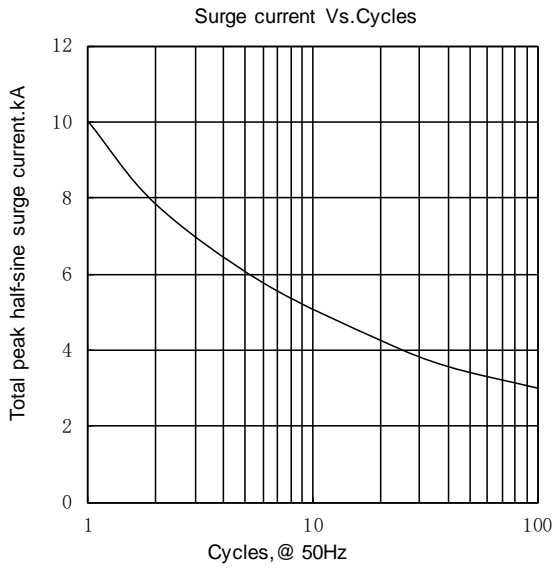


Fig.7

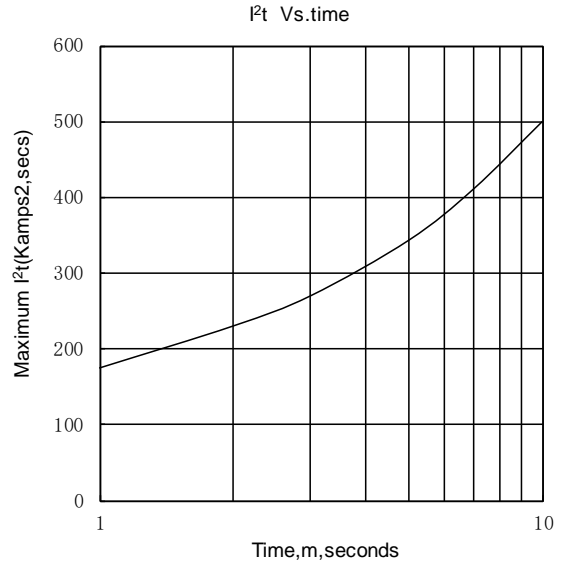


Fig.8

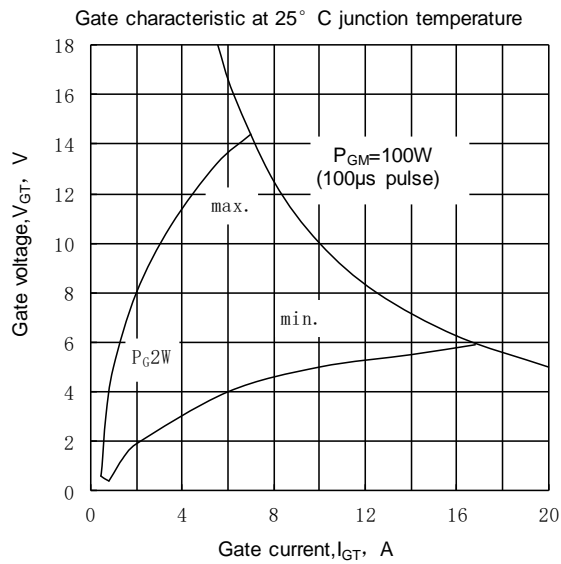


Fig.9

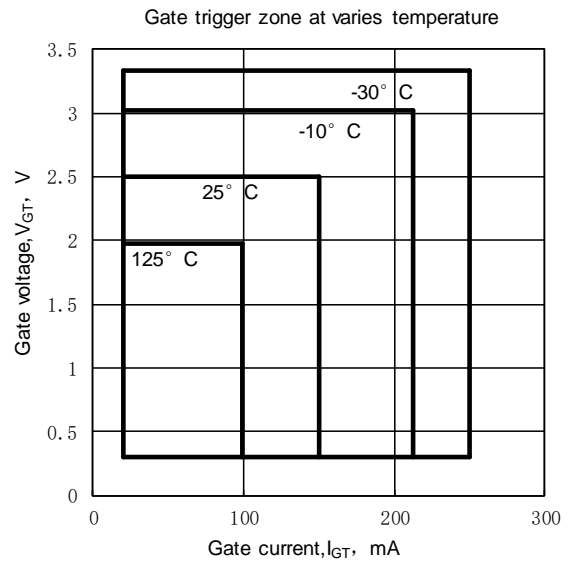


Fig.10

