

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

$I_{T(AV)}$	3940A
V_{DRM}/V_{RRM}	1200 ~ 1800V
I_{TSM}	58 kA
I^2t	16820 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,	125			3940	A
						4603	A
						3188	A
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	125			250	mA
I _{TSM}	Surge on-state current	10ms half sine wave V _R =0V _{RRM}	125			58	kA
I ² t	I ² t for fusing coordination					16820	10 ³ A ² s
V _{TO}	Threshold voltage		125			0.77	V
r _T	On-state slope resistance					0.09	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =5000A, F=63kN	25			1.60	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 2500A, Gate pulse t _r ≤ 0.5μs I _{GM} =1.5A.	125			200	A/μs
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
I _L	Latching current					1500	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	D.C. double side cooled Clamping force 63kN				0.0085	°C/W
R _{th(c-h)}	Thermal resistance case to heatsink					0.0020	
F _m	Mounting force			63		84	kN
T _{vj}	Junction temperature			-40		125	°C
T _{stg}	Stored temperature			-40		150	°C
W _t	Weight					1230	g
Outline	P73						

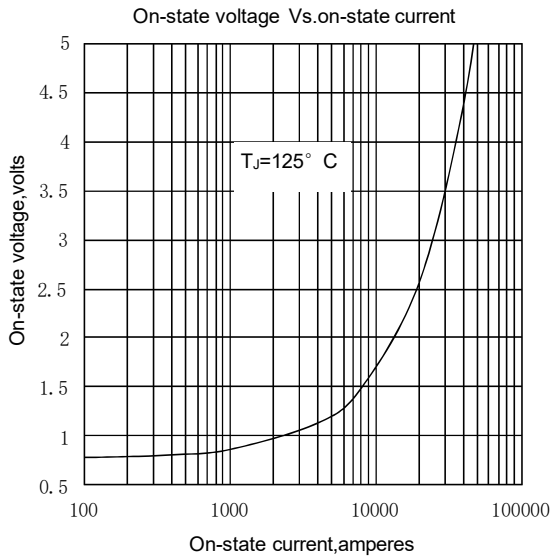


Fig.1

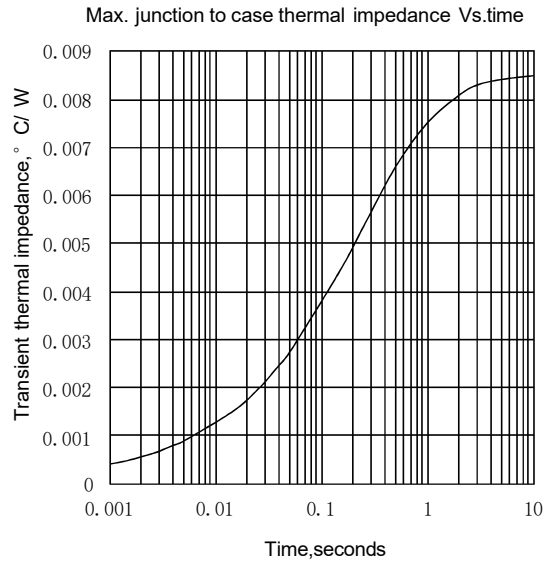


Fig.2

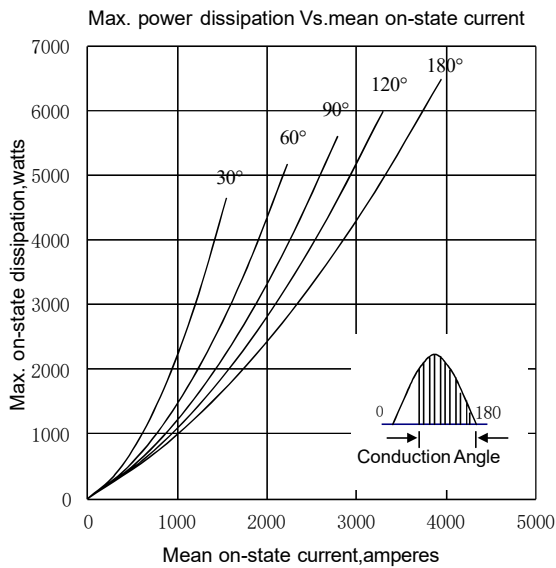


Fig.3

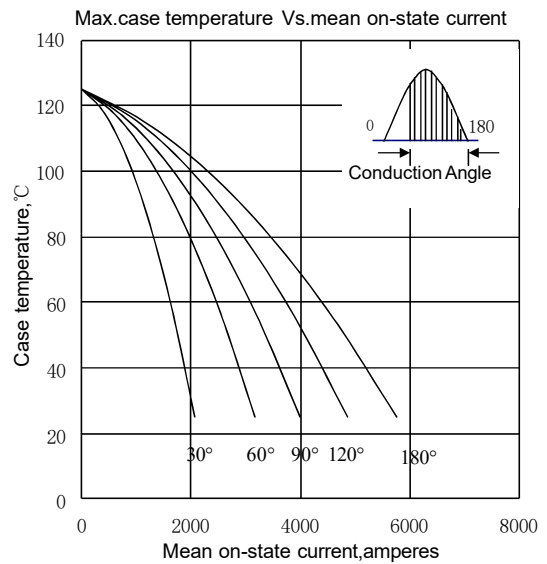


Fig.4

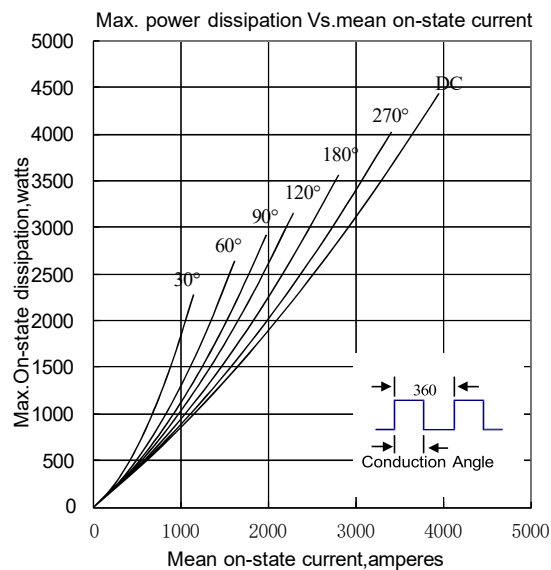


Fig.5

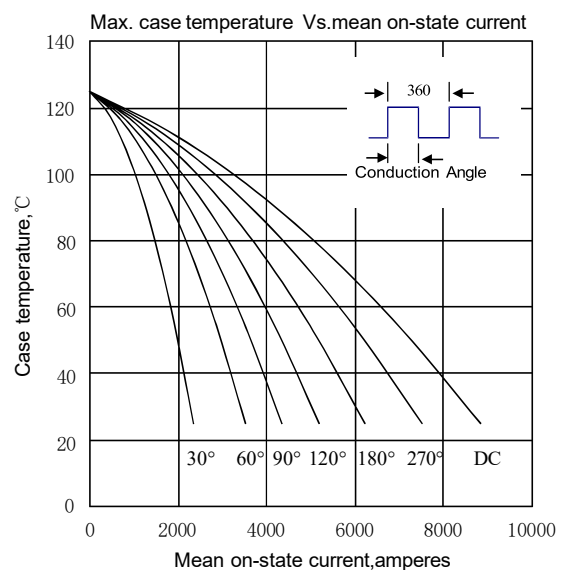


Fig.6

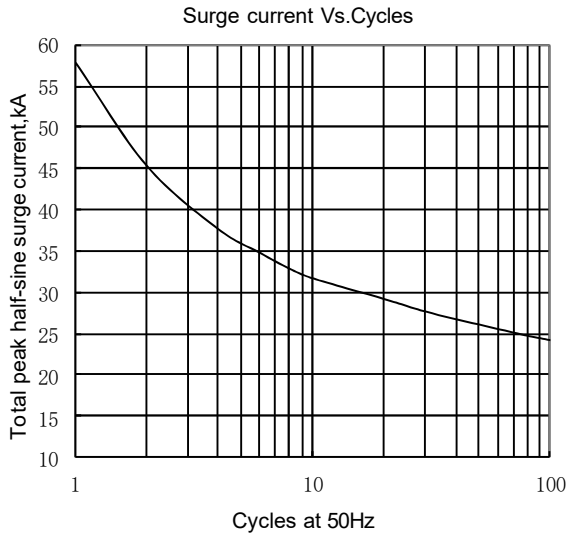


Fig.7

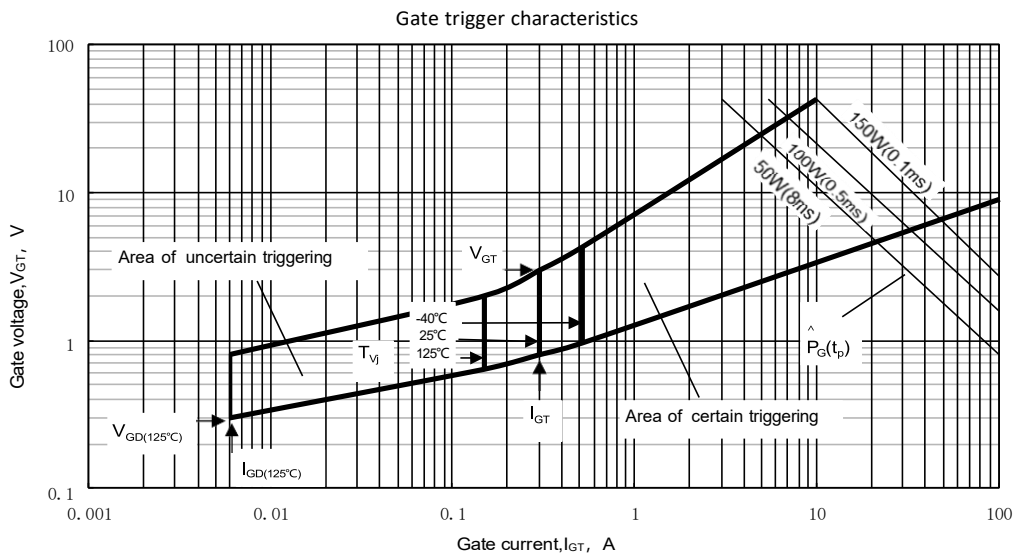


Fig.8

Outline:

