

Features

- Center amplifying gate
- Metal case with ceramic insulator
- Low on-state and switching losses

$I_{T(AV)}$ 860A
 V_{DRM}/V_{RRM} 200 ~ 600V
 I_{TSM} 12 kA
 I^2t 720 10³A²S

Typical Applications

- AC controllers
- DC and AC motor control
- Controlled rectifiers

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			860	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			30	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			12	kA
I^2t	I ² t for fusing coordination	$V_R=0.6V_{RRM}$					720	A ² s*10 ³
V_{TO}	Threshold voltage			125			0.73	V
r_T	On-state slope resistance						0.33	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1500A, F=7kN$		25			1.53	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 1300A, Gate pulse t _r ≤ 0.5μs I _{GM} =1.5A		125			100	A/μs
Q _{rr}	Recovery charge	$I_{TM}=1000A, tp=4000μs, di/dt=-20A/μs,$ $V_R=100V$		125		800		μC
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$		25	35		250	mA
V_{GT}	Gate trigger voltage				0.8		2.5	V
I_H	Holding current				20		200	mA
I_L	Latching current						500	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 7kN					0.045	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.010	
F_m	Mounting force				5.3		10	kN
T _{vj}	Junction temperature				-40		125	°C
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					80		g
Outline	P02							

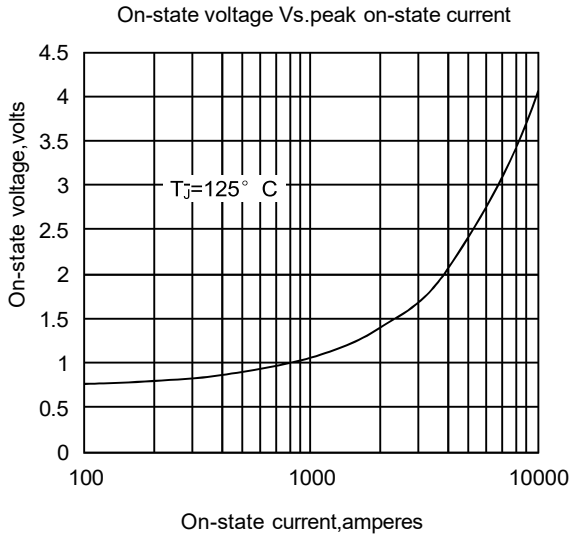


Fig1

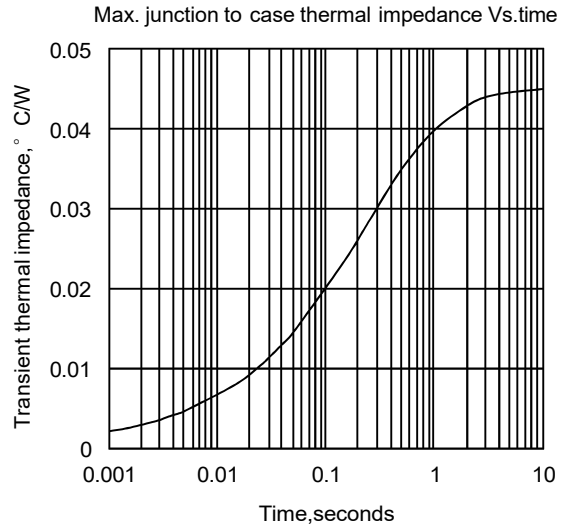


Fig2

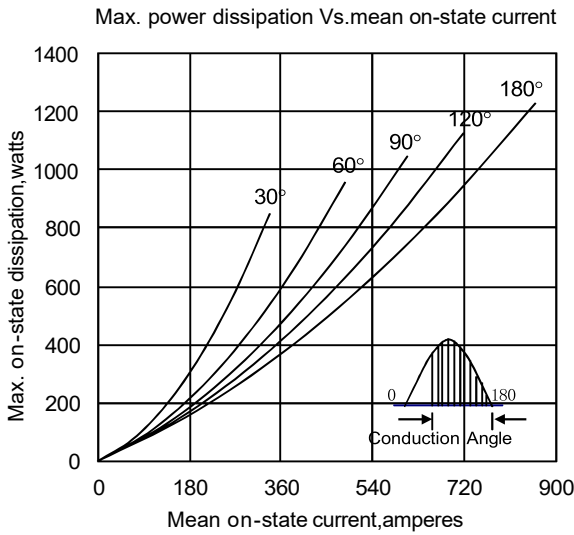


Fig3

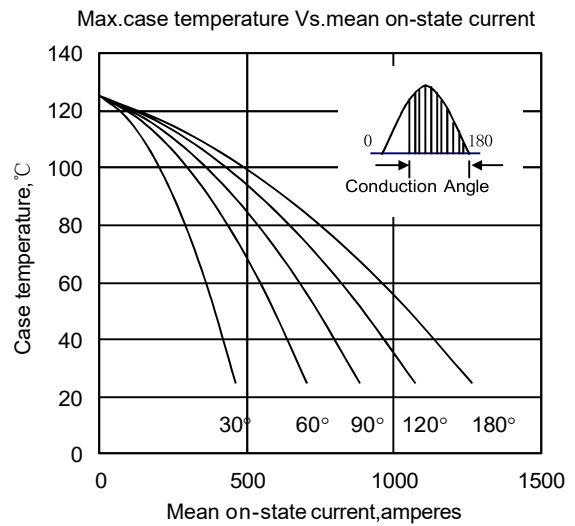


Fig4

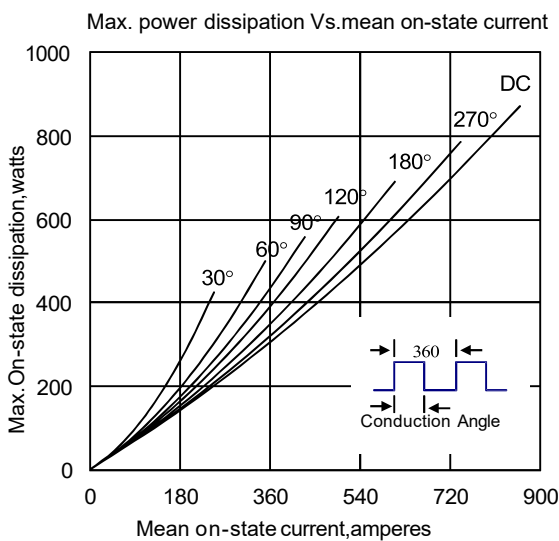


Fig5

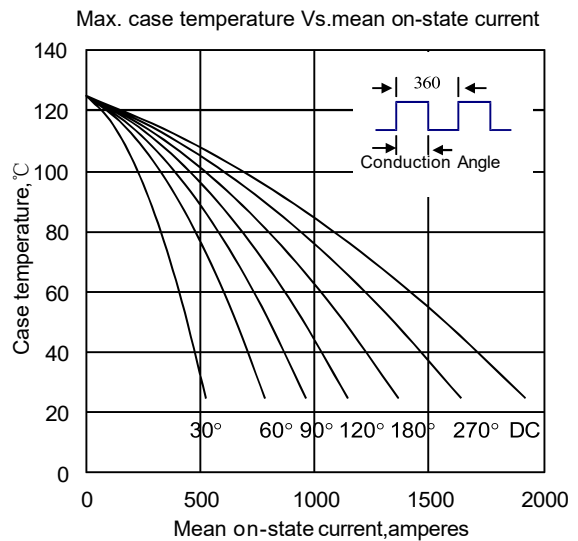


Fig6

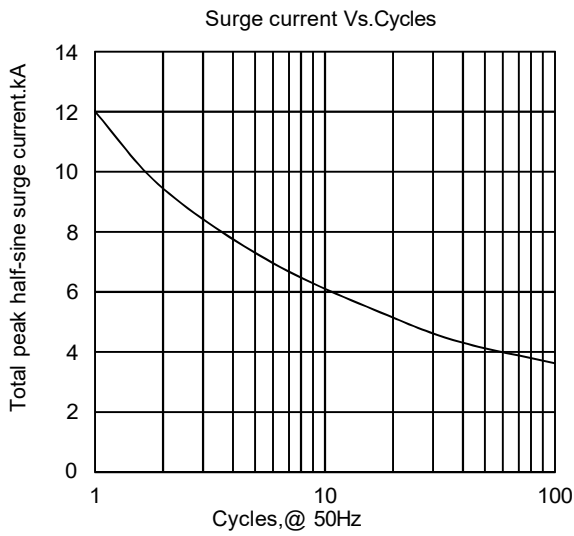


Fig7

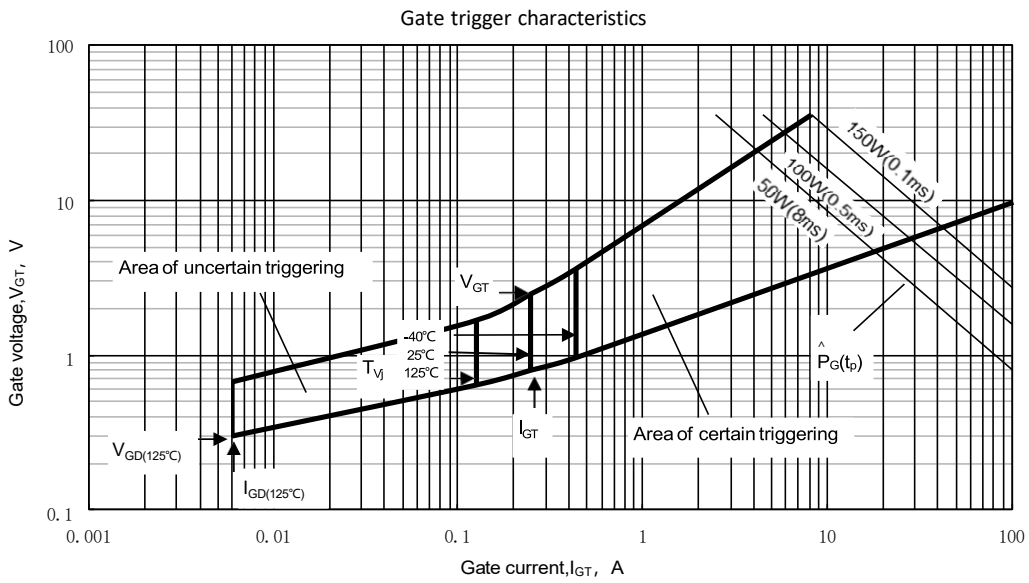


Fig. 8

Outline:

