

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

$I_{T(AV)}$	600 A
V_{DRM}/V_{RRM}	7300-8500V
I_{TSM}	9.8 kA
I^2t	480 $10^3 A^2S$



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			600	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	7300		8500	V
I_{DRM} I_{RRM}	Repetitive peak current	@ V_{DRM} @ V_{RRM}	125			200	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125			9.8	kA
I^2t	I^2t for fusing coordination					480	$A^2s \cdot 10^3$
V_{TO}	Threshold voltage		125			1.04	V
r_T	On-state slope resistance					2.33	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1000A, F=24kN$	25			2.95	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			2000	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 2000A, Gate pulse tr ≤ 0.5μs $I_{GM}=2.0A$	125			100	A/μs
Q_{rr}	Recovery charge	$I_{TM}=2000A, tp=2000μs, di/dt=-5A/μs,$ $V_R=50V$	125		2500		μC
I_{GT}	Gate trigger current			40		300	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$	25	0.8		3.0	V
I_H	Holding current			25		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 24.0kN				0.022	°C/W
$R_{th(c-h)}$	Thermal resistance case to heatsink					0.004	°C/W
F_m	Mounting force			19	24	26	kN
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				560		g
Outline	KT50dT						

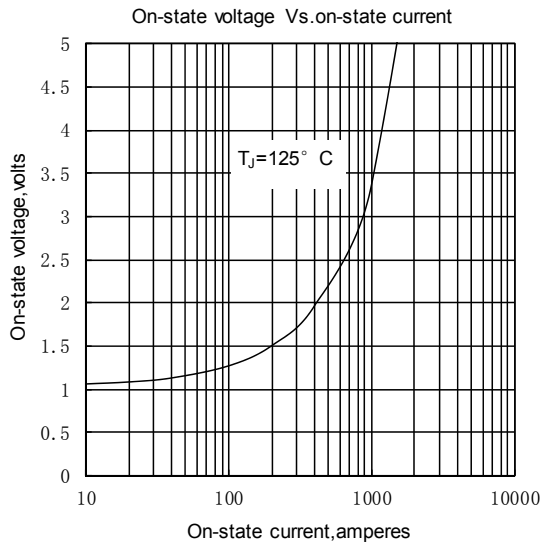


Fig.1

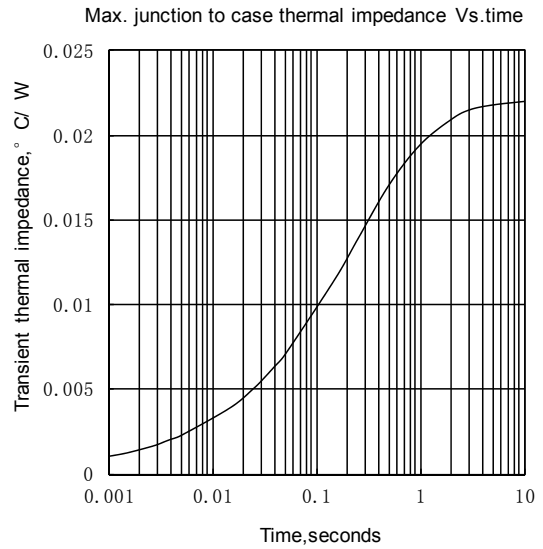


Fig.2

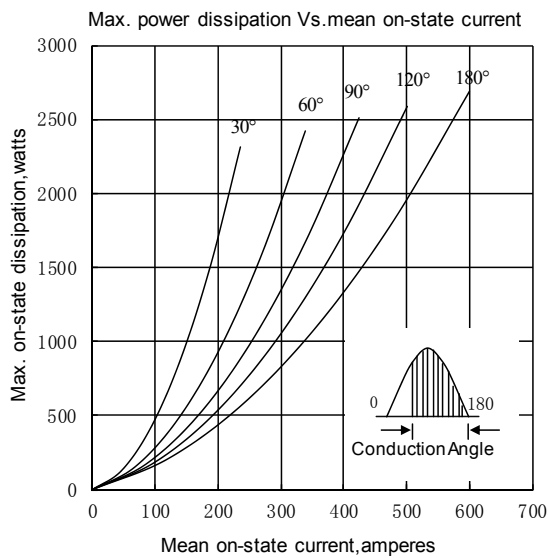


Fig.3

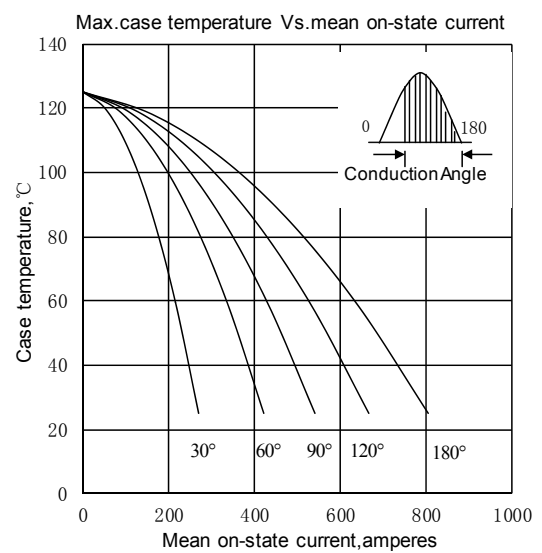


Fig.4

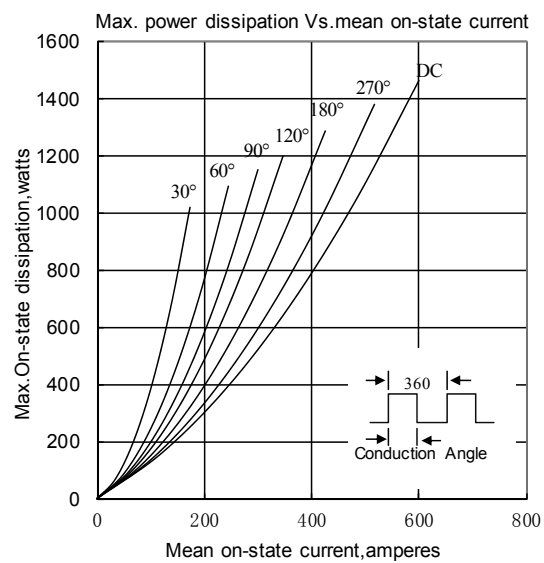


Fig.5

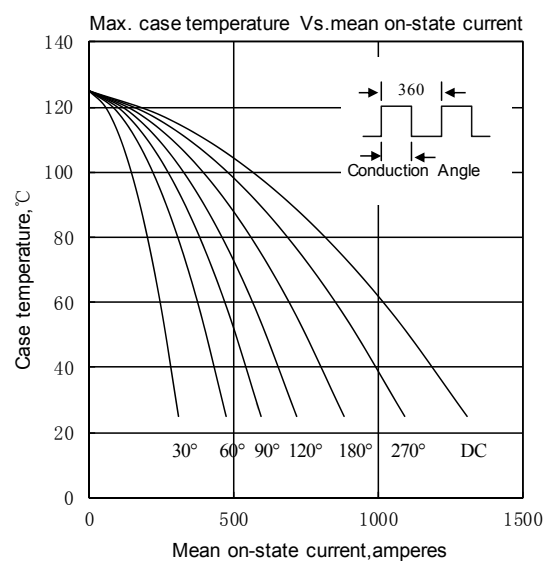


Fig.6

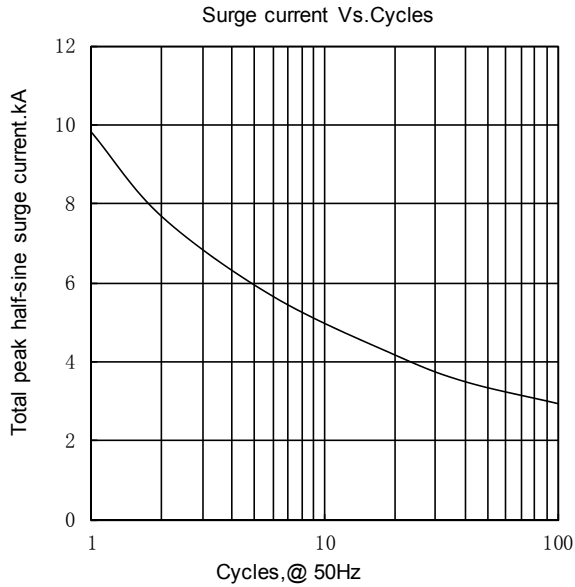


Fig.7

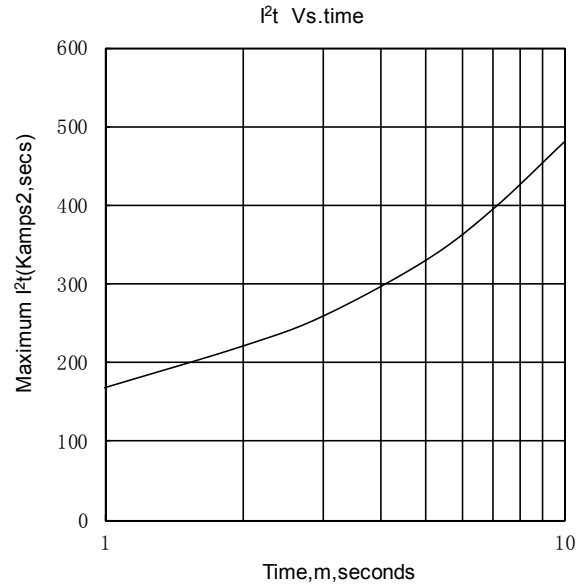


Fig.8

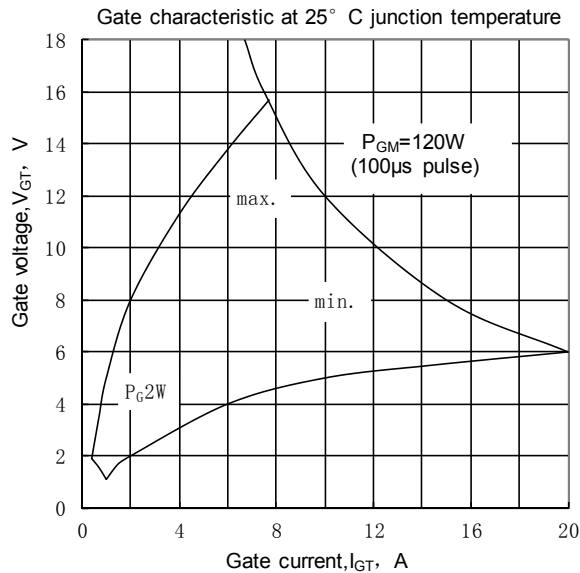


Fig.9

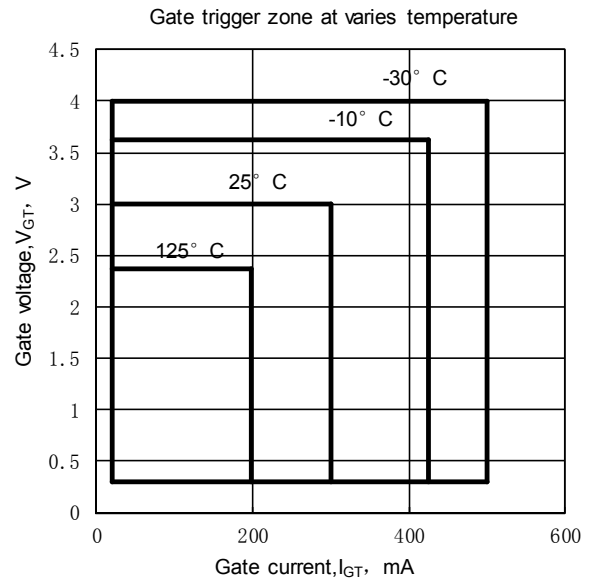


Fig.10

Outline:

