

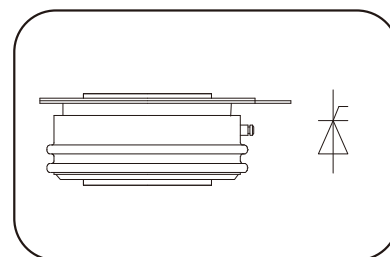
Features

- 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

$I_{T(AV)}$	300A
V_{DRM} / V_{RRM}	1100~1800V
I_{TSM}	3.8 KA
I^2t	72 10 ³ A ² S



Symbol	Characteristic	Test Conditions	$T_j(^{\circ}C)$	Value			Unit
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled $T_{hs}=98^{\circ}C$	125			300	A
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled $T_{hs}=55^{\circ}C$	125			560	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100V$	125	1100		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	$V_{DM} = V_{DRM}$ $V_{RM} = V_{RRM}$	125			30	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			3.8	KA
I^2t	I^2t for fusing coordination	$V_R = 0.6V_{RRM}$				72	A ² s*10 ³
V_{TO}	Threshold voltage		125			0.877	V
r_T	On-state slop resistance					1.02	mΩ
V_{TM}	Peak on-state voltage	$I_{TM} = 900A$, $F = 7.0KN$	25			2.20	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM} = 0.67 V_{DRM}$	125			300	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM} = 67\% V_{DRM}$ to 800A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM} = 1.5A$ Repetitive	125			100	A/μs
I_{rm}	Reverse recovery current	$I_{TM} = 500A$, tp=1000μs, di/dt=-20A/μs, $V_R = 50V$	125			137	A
t_{rr}	Reverse recovery time					15	μs
Q_{rr}	Recovery charge					1027	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
V_{GD}	Non-trigger gate voltage	$V_{DM} = 67\% V_{DRM}$	125	0.3			V
$R_{th(j-h)}$	Thermal resistance Junction to heatsink	At 180° sine double side cooled Clamping force 7.0KN				0.055	°C/W
F_m	Mounting force			5.3		10	KN
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				80		g
Outline	KT25aT						

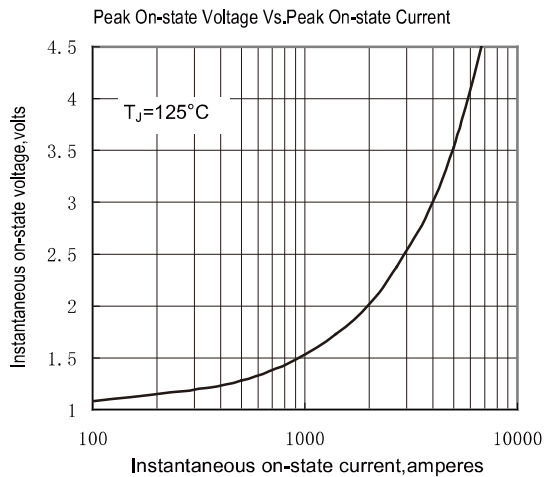


Fig.1

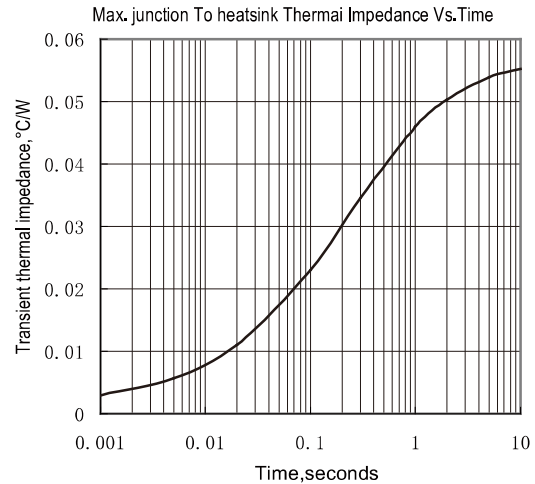


Fig.2

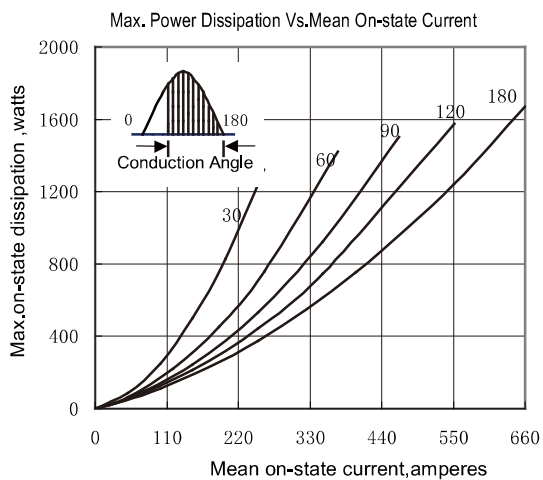


Fig.3

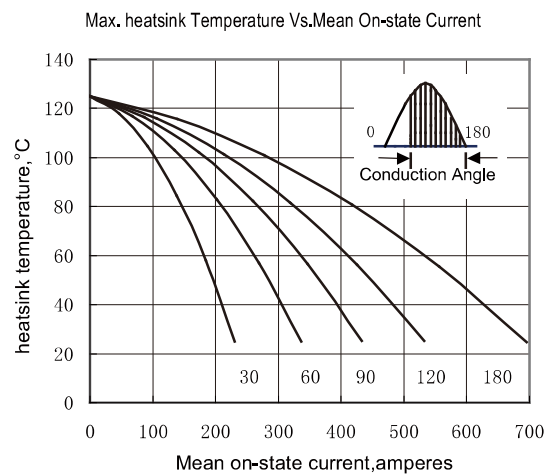


Fig.4

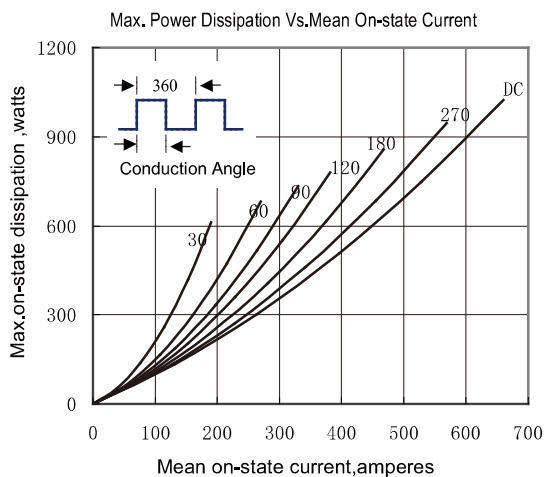


Fig.5

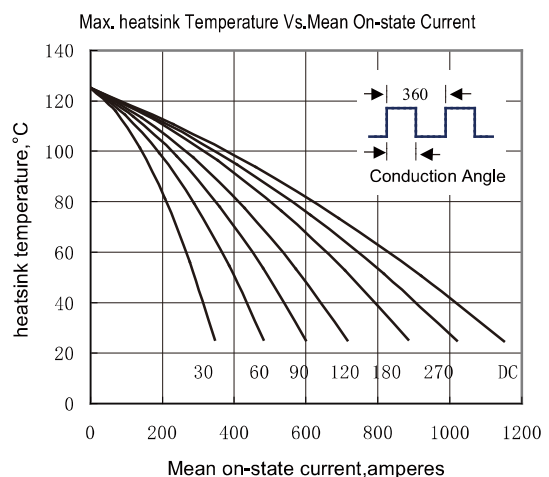


Fig.6

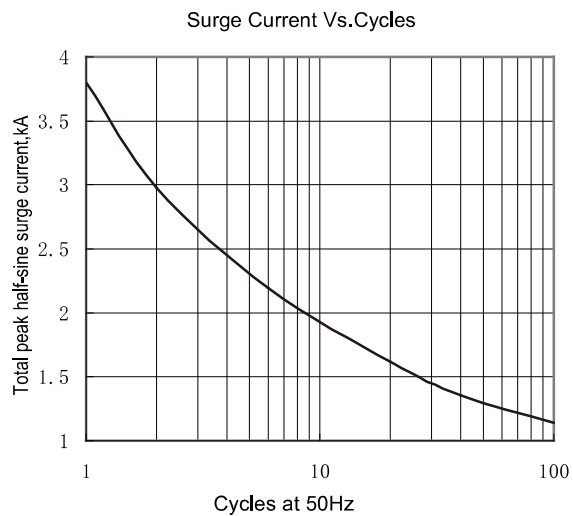


Fig.7

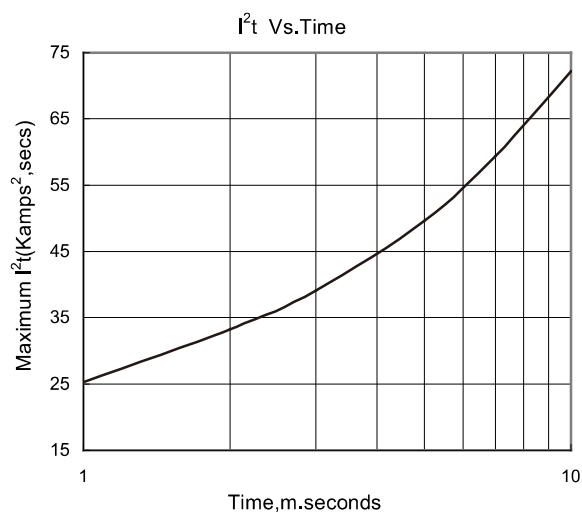


Fig.8

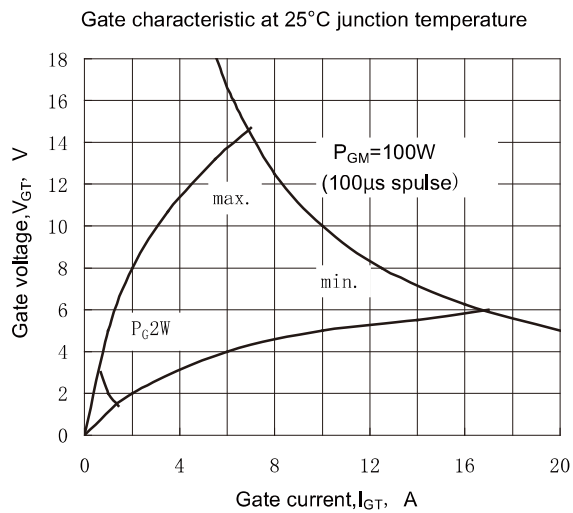


Fig.9

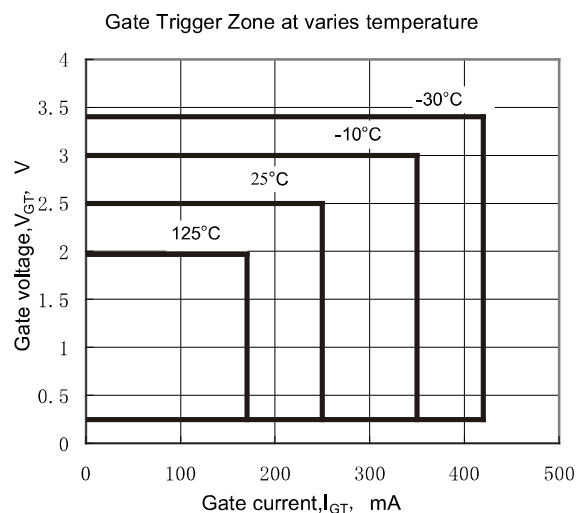


Fig.10

Outline:

