

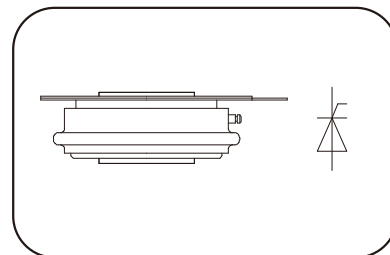
Features

- 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}	400~1000V
I_{TSM}	2.5 KA
I^2t	32 $10^3 A^2S$



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 $T_{hs}=82^{\circ}C$	125			300	A
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled $T_{hs}=55^{\circ}C$	125			416	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	400		1000	V
I_{DRM} I_{RRM}	Repetitive peak current	$V_{DM} = V_{DRM}$ $V_{RM} = V_{RRM}$	125			16	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			2.5	KA
I^2t	I^2t for fusing coordination	$V_R = 0.6V_{RRM}$				32	$A^2s \cdot 10^3$
V_{TO}	Threshold voltage		125			0.75	V
r_T	On-state slop resistance					1.00	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=900A$, $F=5.0KN$	125			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	$I_{TM}=500A, tp=1000\mu s$, di/dt=-20A/μs, $V_R=50V$	125			100	A
t_{rr}	Reverse recovery time					12	μs
Q_{rr}	Recovery charge					600	μC
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$	25	30		200	mA
V_{GT}	Gate trigger voltage			0.8		2.0	V
I_H	Holding current			20		150	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 5.0KN				0.095	$^{\circ}C/W$
F_m	Mounting force			3.3		5.5	KN
T_{stg}	Stored temperature			-40		140	$^{\circ}C$
W_t	Weight				55		g
Outline	KT19aT						

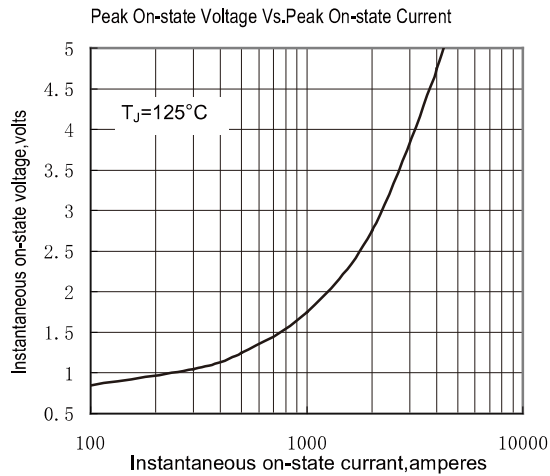


Fig.1

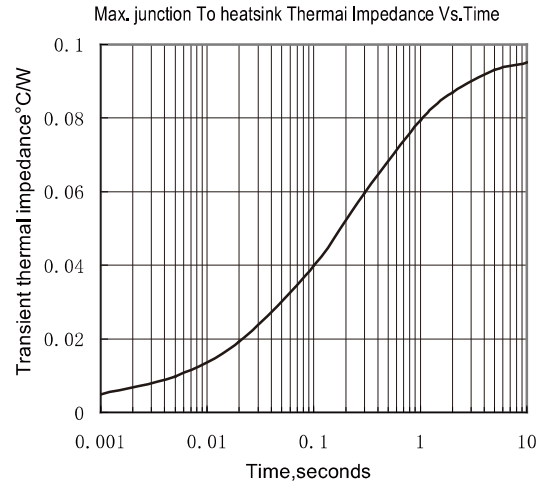


Fig.2

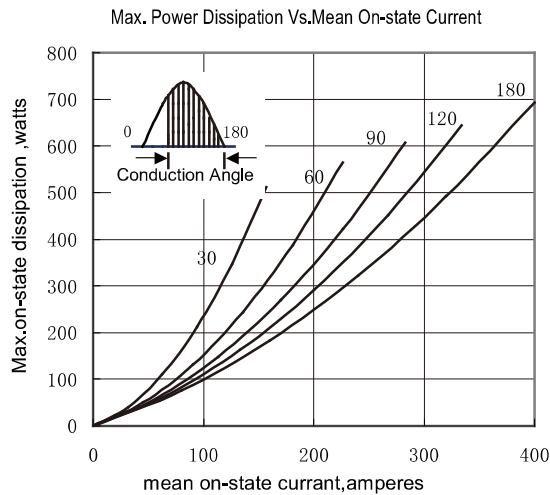


Fig.3

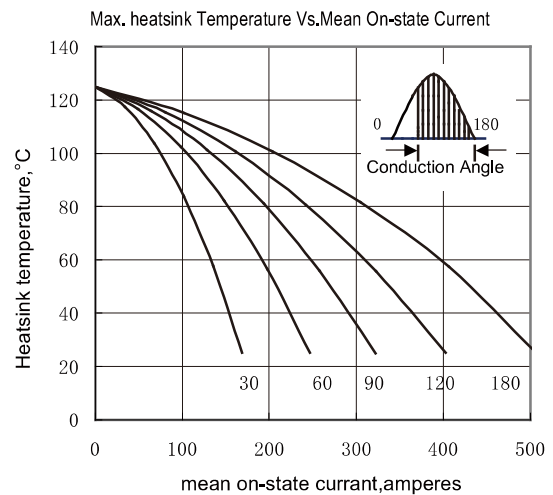


Fig.4

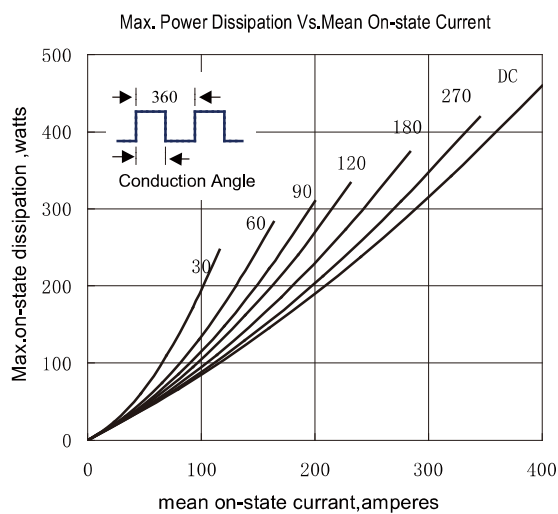


Fig.5

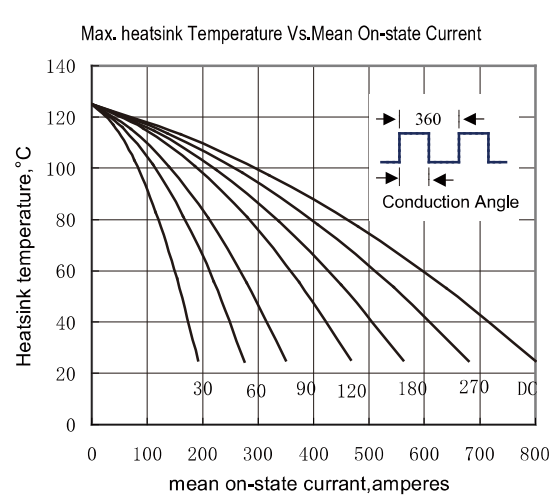


Fig.6

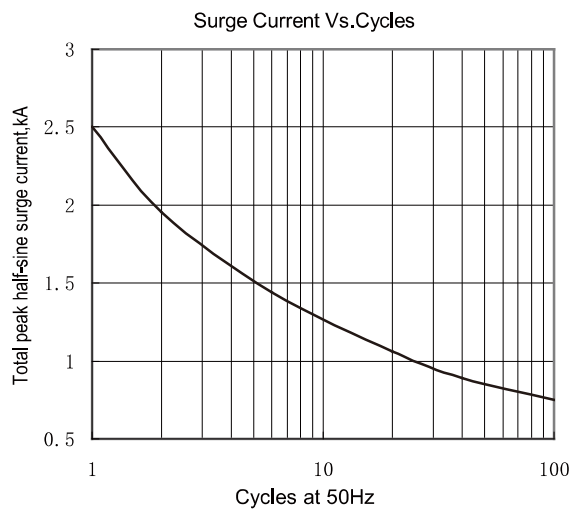


Fig.7

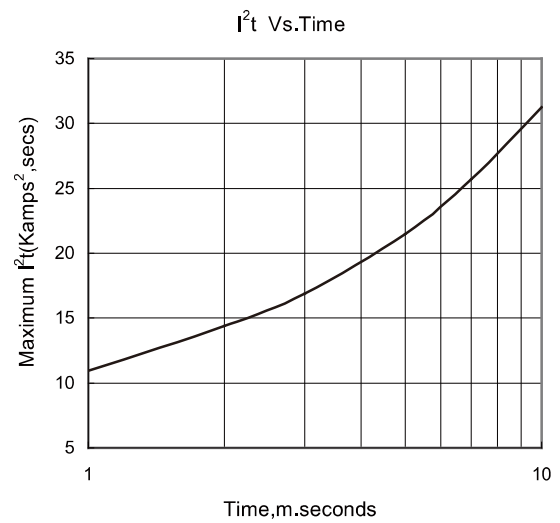


Fig.8

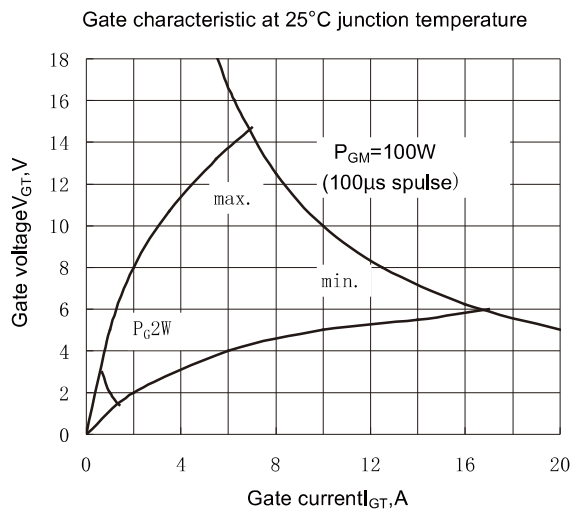


Fig.9

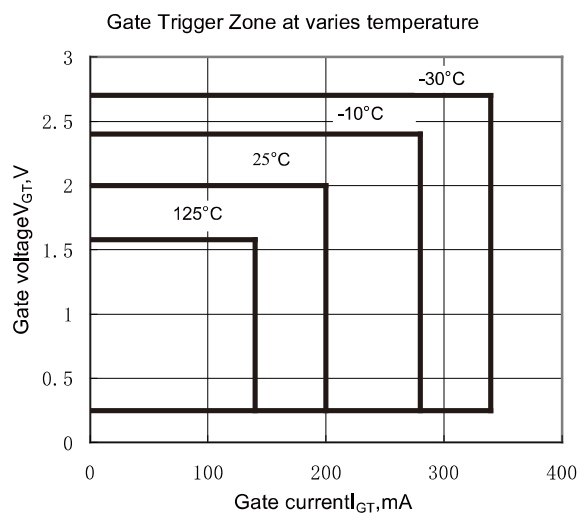


Fig.10

Outline:

