

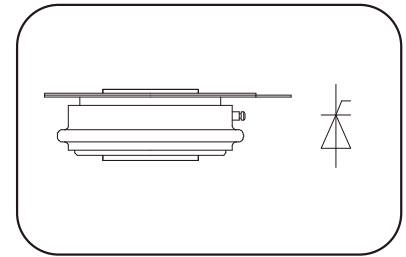
**Features**

- 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

$I_{T(AV)}$	477A
$V_{DRM}/V_{RRM}$	200~600V
$I_{TSM}$	6.0 KA
$I^2t$	180 $10^3A^2S$



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 $T_{hs}=55^{\circ}C$	125			477	A
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ $t_p=10ms$ $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100V$	125	200		600	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			6	KA
$I^2t$	$I^2t$ for fusing coordination	$V_R = 0.6V_{RRM}$				180	$A^2s \cdot 10^3$
$V_{TO}$	Threshold voltage		125			0.83	V
$r_T$	On-state slop resistance					0.61	mΩ
$V_{TM}$	Peak on-state voltage	$I_{TM}=1000A, F=5.0KN$	125			1.44	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	$I_{TM}=500A, t_p=1000\mu s,$ $di/dt=-20A/\mu s,$ $V_R=50V$	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	35		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	0.25			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						

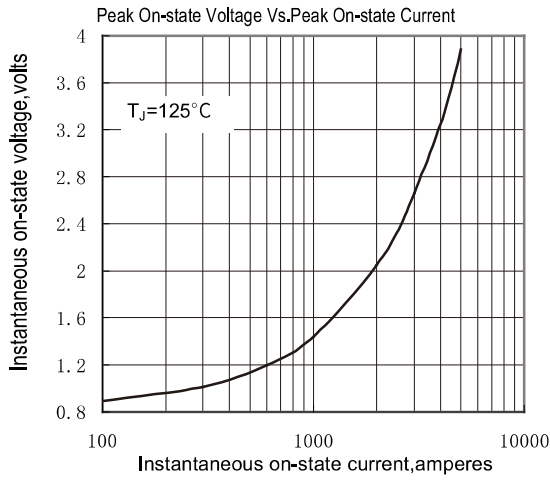


Fig.1

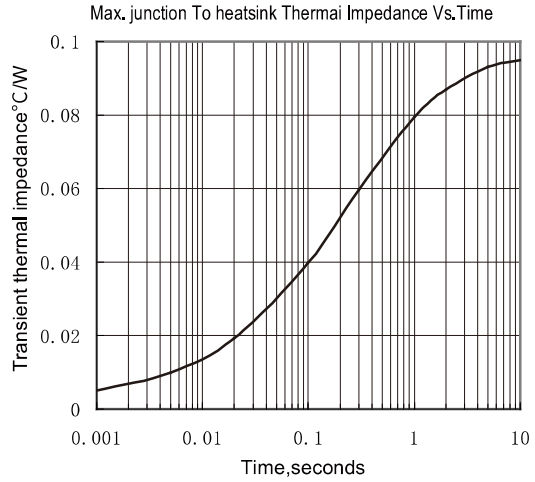


Fig.2

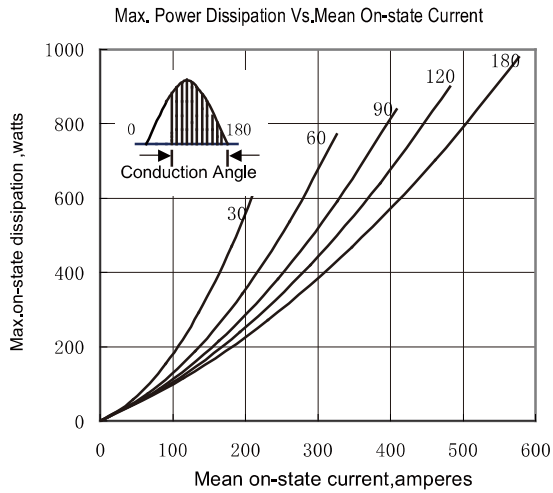


Fig.3

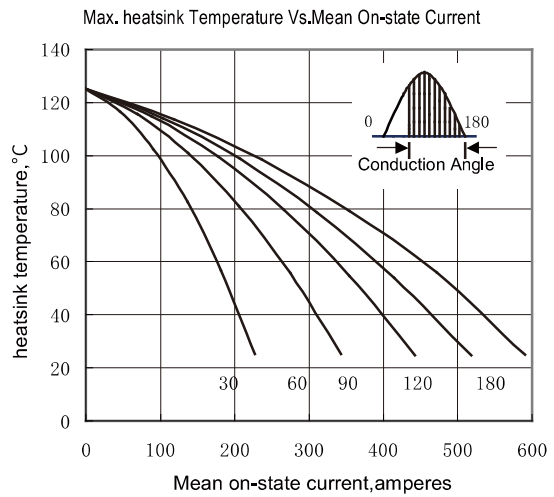


Fig.4

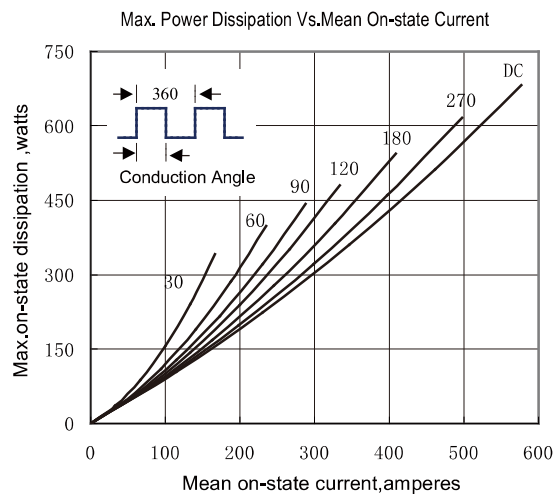


Fig.5

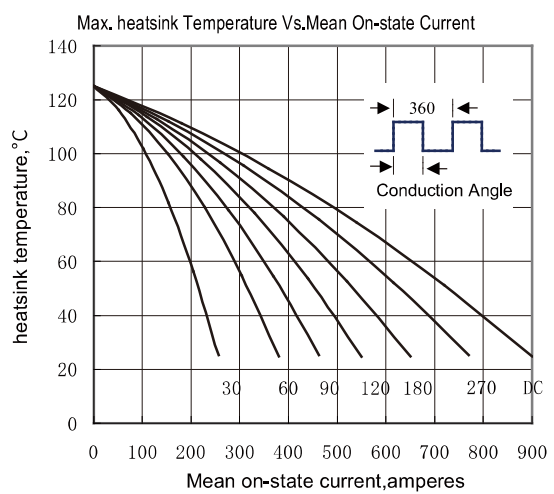


Fig.6

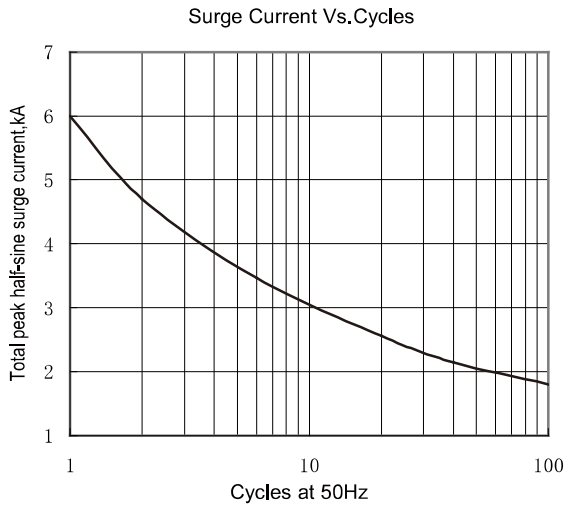


Fig.7

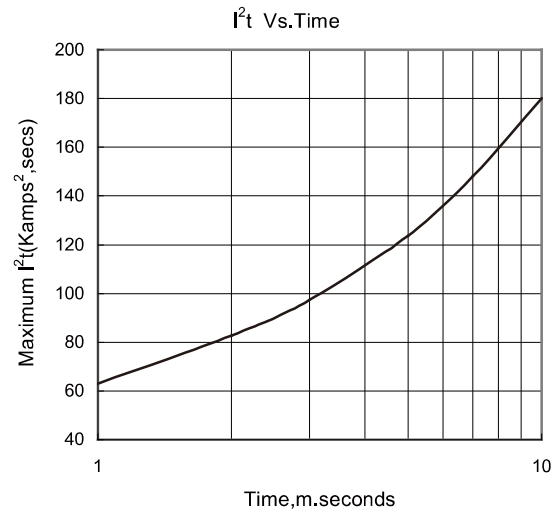


Fig.8

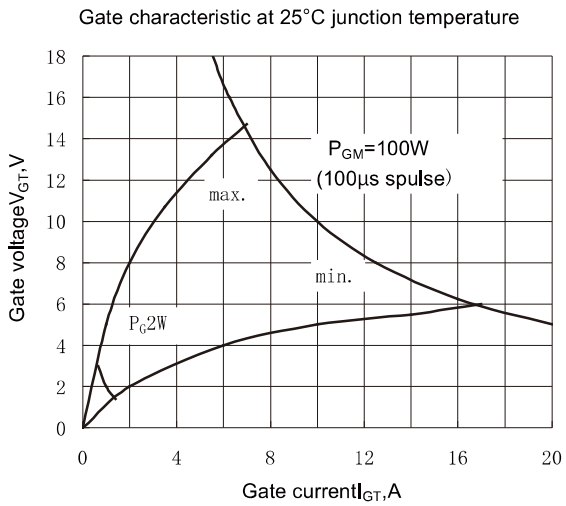


Fig.9

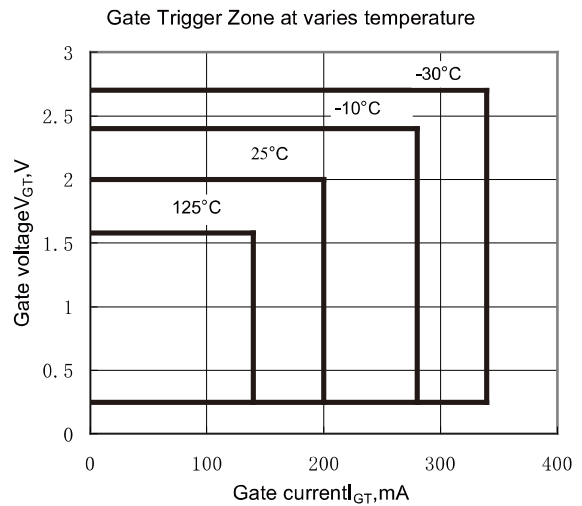


Fig.10

**Outline:**

