

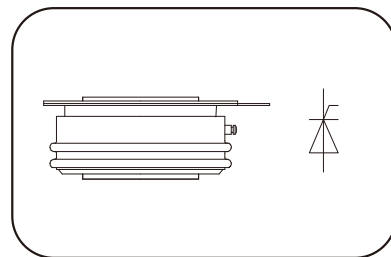
Features

- 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

$I_{T(AV)}$	3000A
V_{DRM}/V_{RRM}	1100~1800V
I_{TSM}	38 KA
I^2t	7220 10 ³ A ² S



Symbol	Characteristic	Test Conditions	$T_j(^{\circ}\text{C})$	Value			Unit
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled $T_{hs}=75^{\circ}\text{C}$	125			3000	A
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled $T_{hs}=55^{\circ}\text{C}$	125			3790	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM} & V_{RRM} $t_p=10\text{ms}$ V_{DSM} & $V_{RSM}=V_{DRM}$ & $V_{RRM}+100\text{V}$	125	1100		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	$V_{DM}=V_{DRM}$ $V_{RM}=V_{RRM}$	125			200	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			38	KA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$				7220	A ² s*10 ³
V_{TO}	Threshold voltage		125			0.84	V
r_T	On-state slop resistance					0.09	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=5000\text{A}$, $F=40\text{KN}$	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 2000A, Gate pulse $t_r \leq 0.5\mu\text{s}$ $I_{GM}=1.5\text{A}$ Repetitive	125			250	A/μs
I_{rm}	Reverse recovery current	$I_{TM}=1500\text{A}$, $t_p=1000 \mu\text{s}$,	125			250	A
t_{rr}	Reverse recovery time	$di/dt=-20\text{A}/\mu\text{s}$,				24	μs
Q_{rr}	Recovery charge	$V_R=50\text{V}$				3000	μC
I_{GT}	Gate trigger current	$V_A=12\text{V}$, $I_A=1\text{A}$	25	40		300	mA
V_{GT}	Gate trigger voltage			0.8		3.0	V
I_H	Holding current			20		300	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 40KN				0.011	°C/W
F_m	Mounting force			35		47	KN
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				1100		g
Outline	KT73cT						

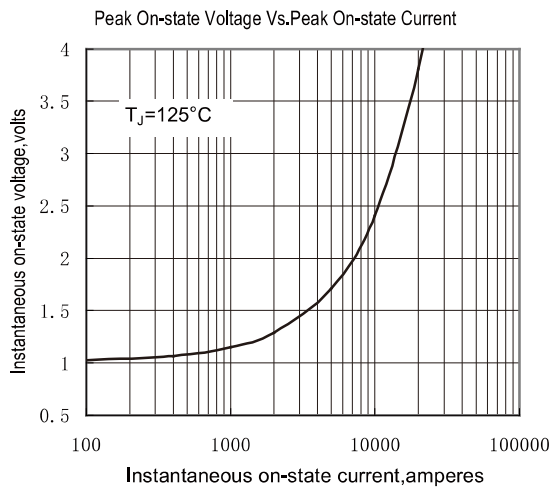


Fig.1

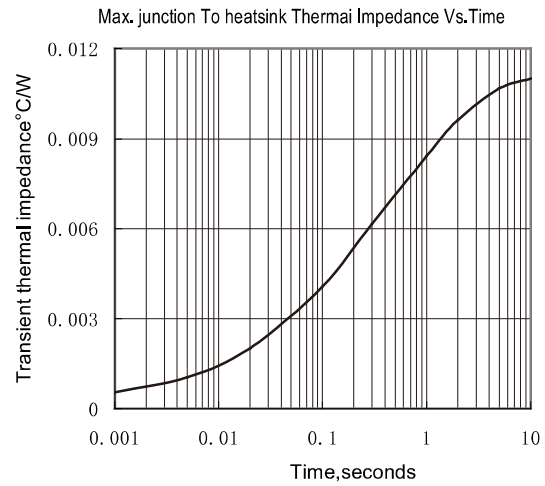


Fig.2

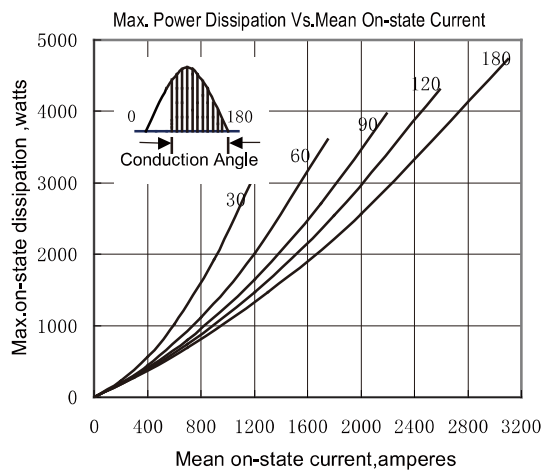


Fig.3

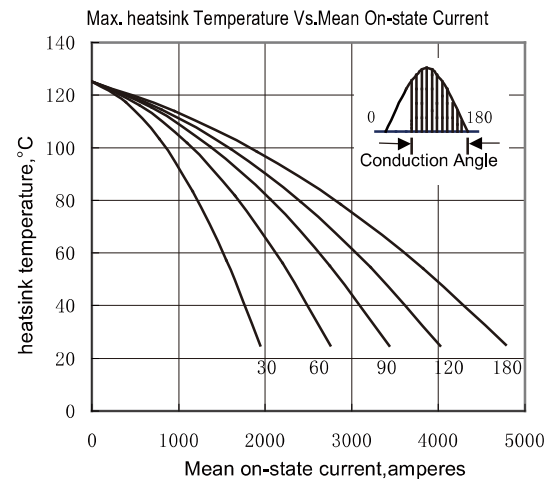


Fig.4

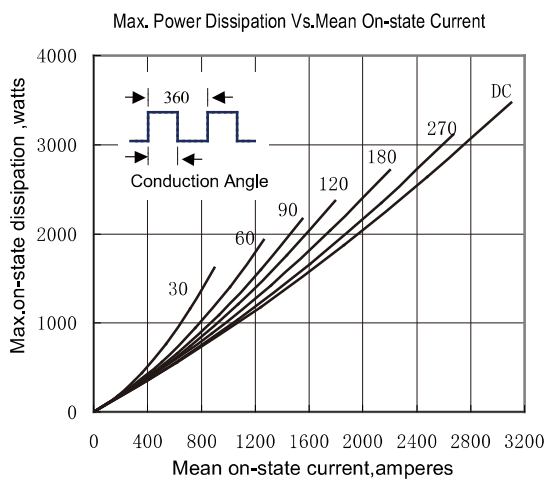


Fig.5

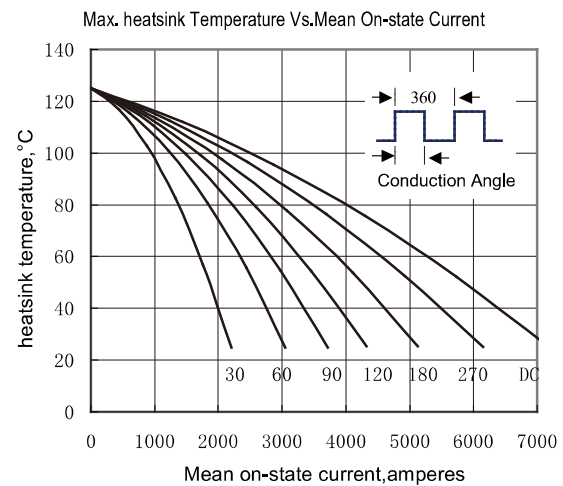


Fig.6

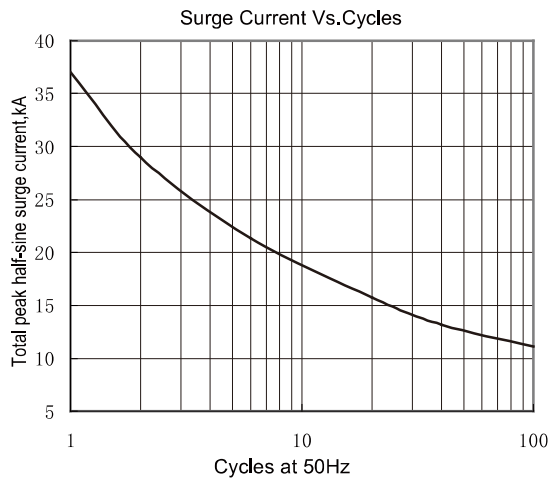


Fig.7

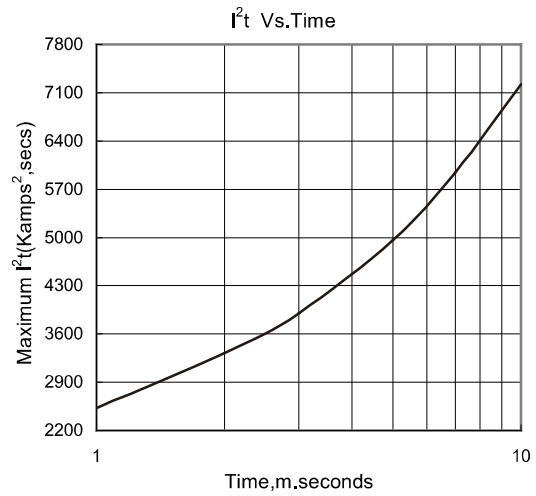


Fig.8

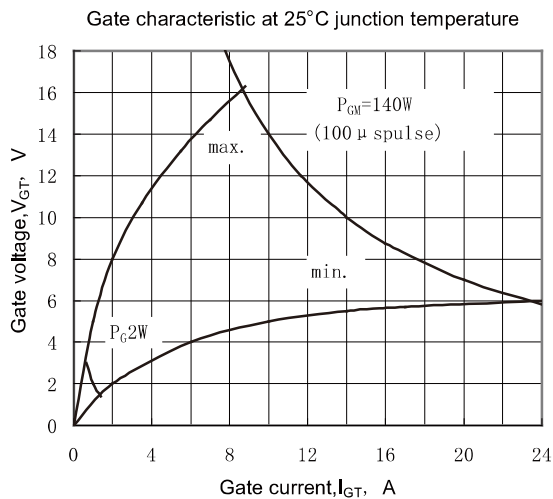


Fig.9

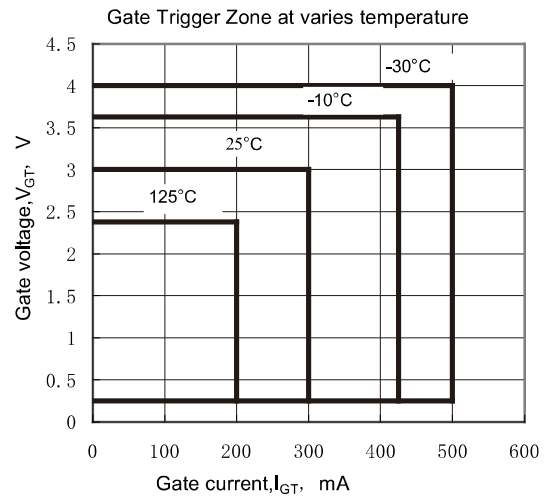


Fig.10

Outline:

