

### 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

$I_{T(AV)}$	<b>2150A</b>
$V_{DRM}/V_{RRM}$	<b>200~600V</b>
$I_{TSM}$	<b>32 kA</b>
$I^2t$	<b>5120 10<sup>3</sup>A<sup>2</sup>S</b>



SYMBOL	CHARACTERISTIC	TEST CONDITIONS		T <sub>J</sub> (°C)	VALUE			UNIT
					Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled	T <sub>C</sub> =70°C				2150	
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	200		600	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	at $V_{DRM}$ at $V_{RRM}$		125			80	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave		125			32	kA
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$					5120	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage			125			0.75	V
$r_T$	On-state slope resistance						0.10	mΩ
$V_{TM}$	Peak on-state voltage	$I_{TM}=3000A, F=24kN$		25			1.35	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			1000	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to2500A, Gate pulse t <sub>r</sub> ≤0.5μs I <sub>GM</sub> =1.5A		125			100	A/μs
Q <sub>rr</sub>	Recovery charge	$I_{TM}=2000A, tp=2000μs, di/dt=-20A/μs,$ $V_R=50V$		125		1200		μC
$I_{GT}$	Gate trigger current			25	40		300	mA
$V_{GT}$	Gate trigger voltage	$V_A=12V, I_A=1A$			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
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 24kN					0.020	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.005	
$F_m$	Mounting force				19		26	kN
T <sub>stg</sub>	Stored temperature				-40		140	°C
W <sub>t</sub>	Weight					170		g
Outline	KT44aT							

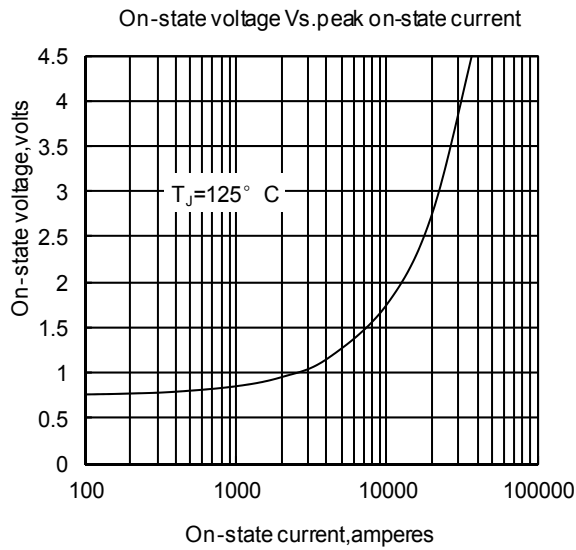


Fig1

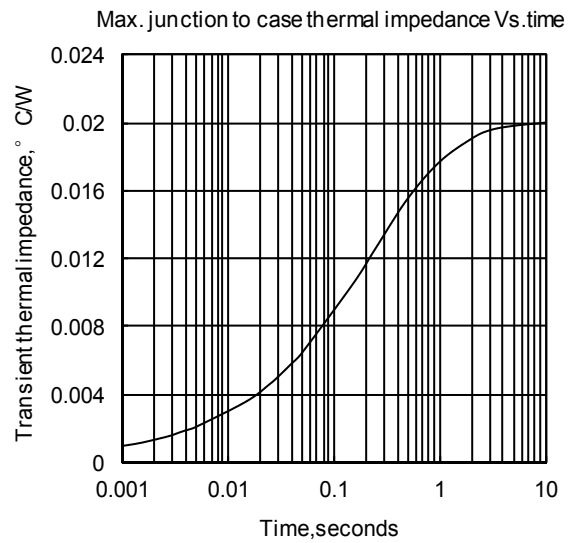


Fig2

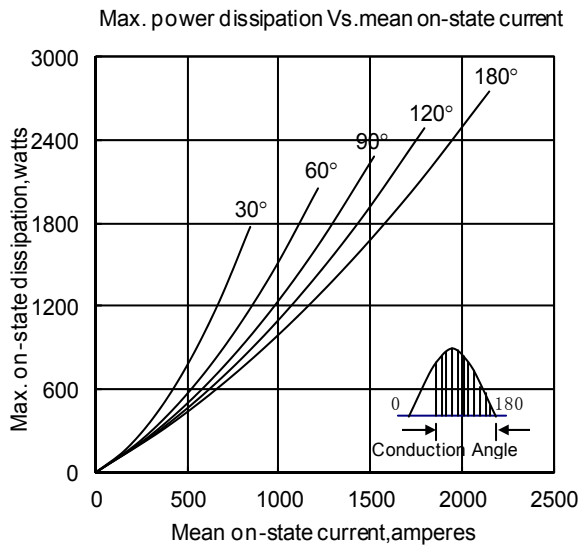


Fig3

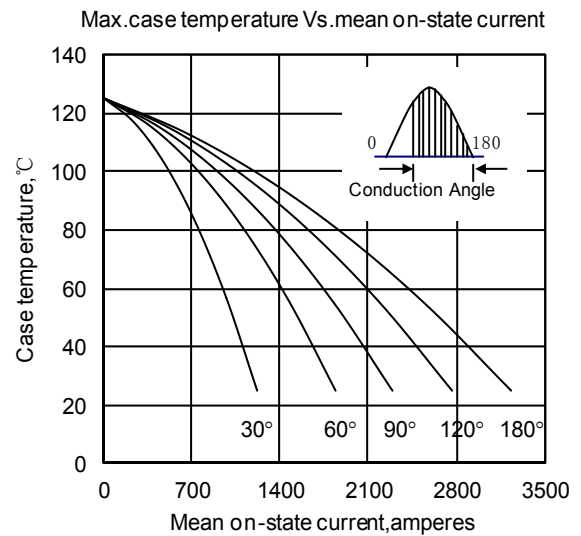


Fig4

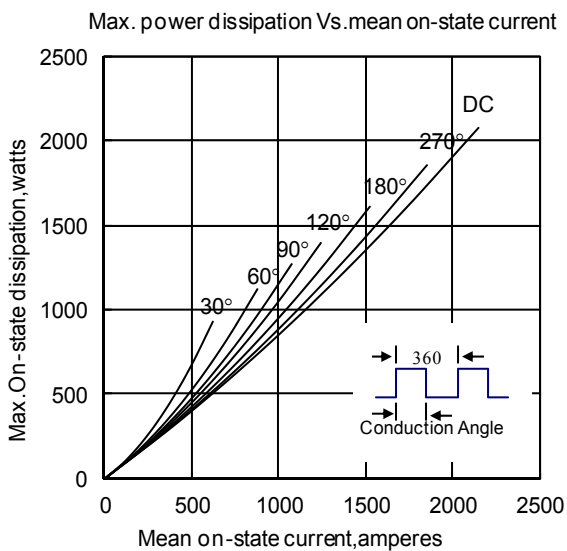


Fig5

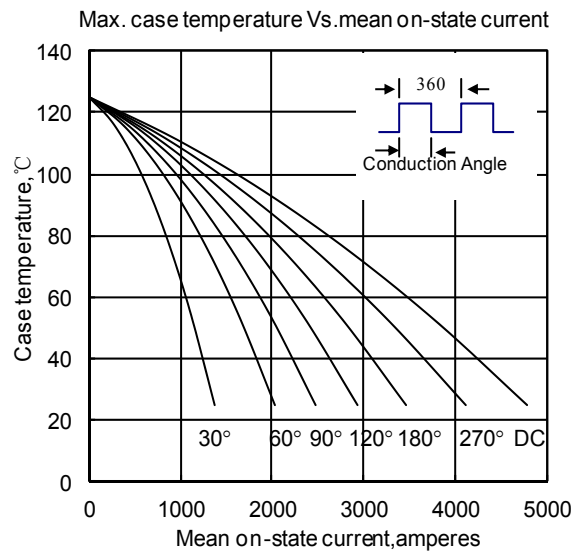


Fig6

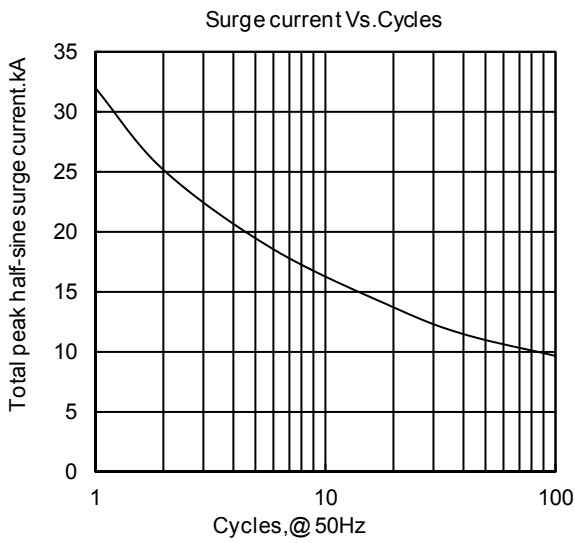


Fig7

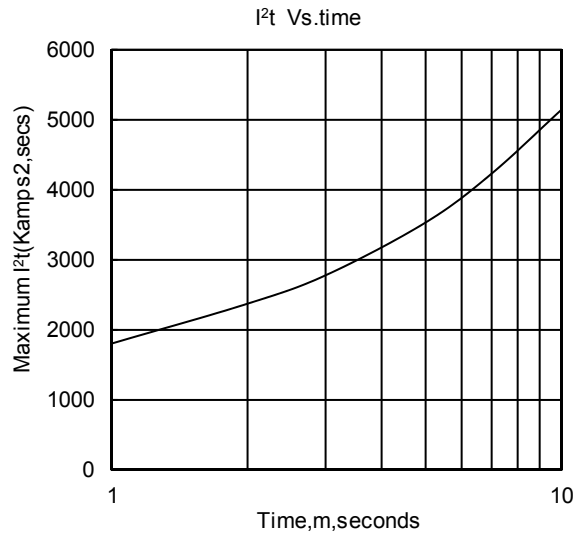


Fig8

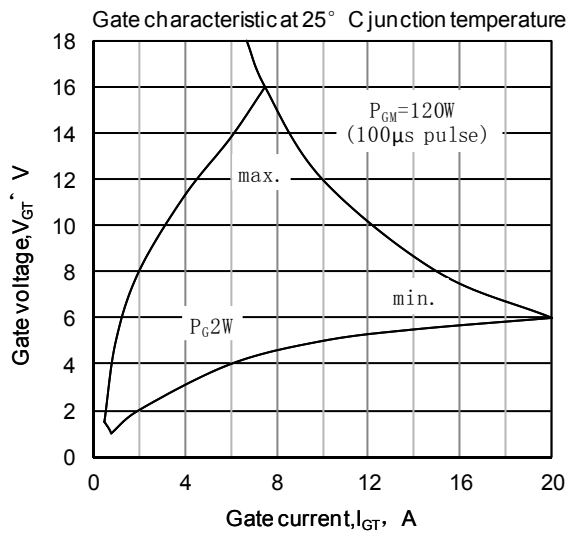


Fig9

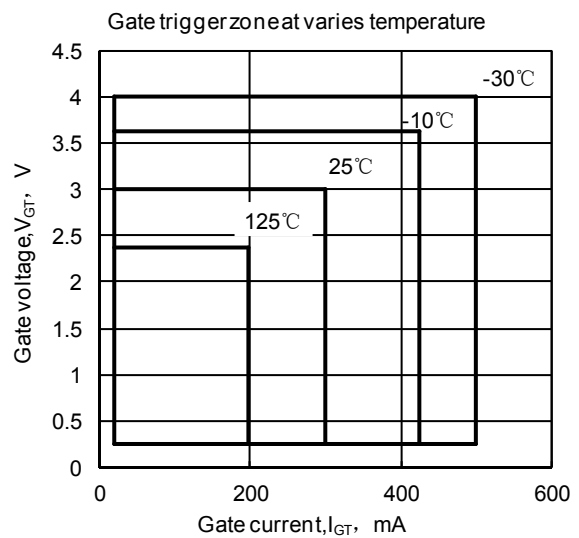


Fig10

Outline:

