

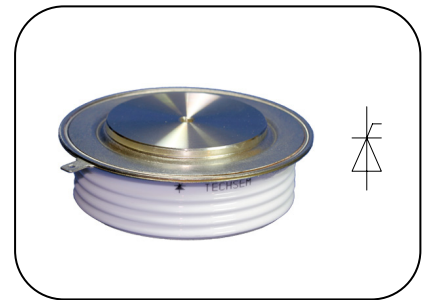
### Features

- 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>1070A</b>
$V_{DRM}/V_{RRM}$	<b>1100~1800V</b>
$I_{TSM}$	<b>12 kA</b>
$I^2t$	<b>720 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 <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Double side cooled, T <sub>C</sub> =70°C	125			1070	A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	1100		1800	V
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>	125			50	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave	125			12	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>				720	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage		125			0.91	V
r <sub>T</sub>	On-state slope resistance					0.35	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =2400A, F=18kN	25			2.20	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub>	125			1000	V/μs
di/dt	Critical rate of rise of on-state current	V <sub>DM</sub> = 67%V <sub>DRM</sub> to 1500A, 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 <sub>TM</sub> =2000A, tp=1000μs, di/dt=-20A/μs, V <sub>R</sub> =50V	125		1200		μC
I <sub>GT</sub>	Gate trigger current		25	40		300	mA
V <sub>GT</sub>	Gate trigger voltage	V <sub>A</sub> =12V, I <sub>A</sub> =1A		0.8		3.0	V
I <sub>H</sub>	Holding current			20		250	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub>	125	0.3			V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 18kN				0.0280	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink					0.0075	
F <sub>m</sub>	Mounting force			15		20	kN
T <sub>stg</sub>	Stored temperature			-40		140	°C
W <sub>t</sub>	Weight				320		g
Outline	KT39cT40						

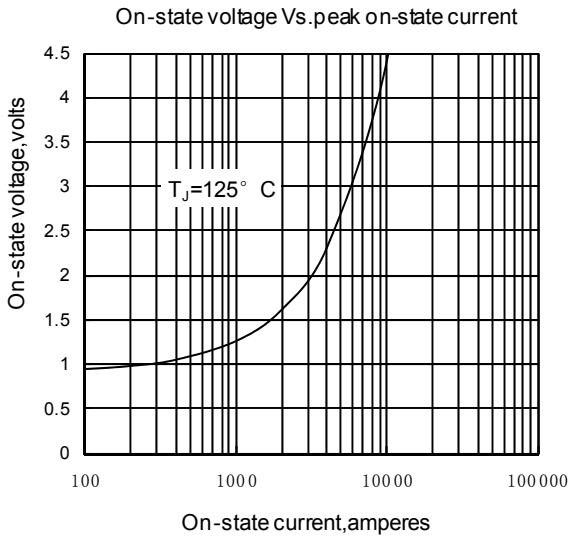


Fig1

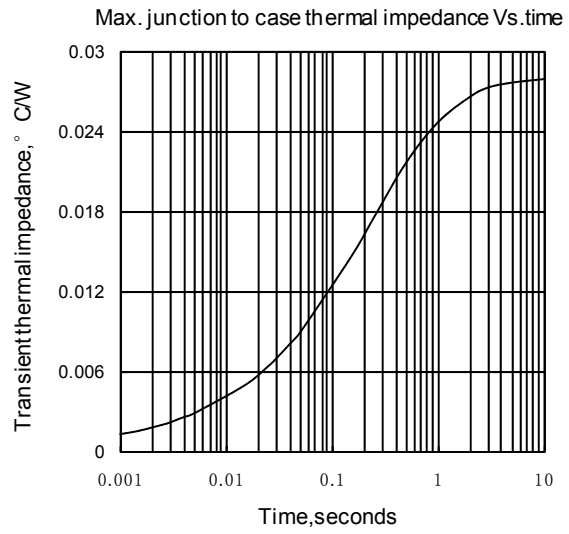


Fig2

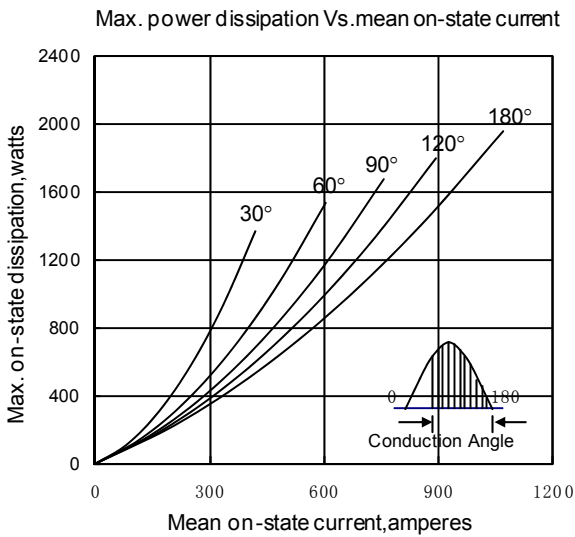


Fig3

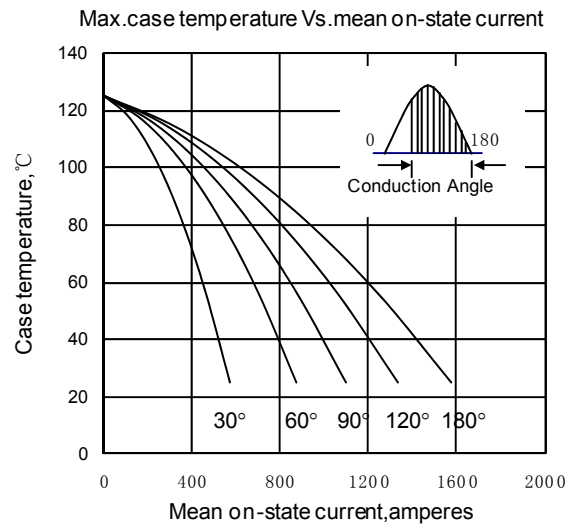


Fig4

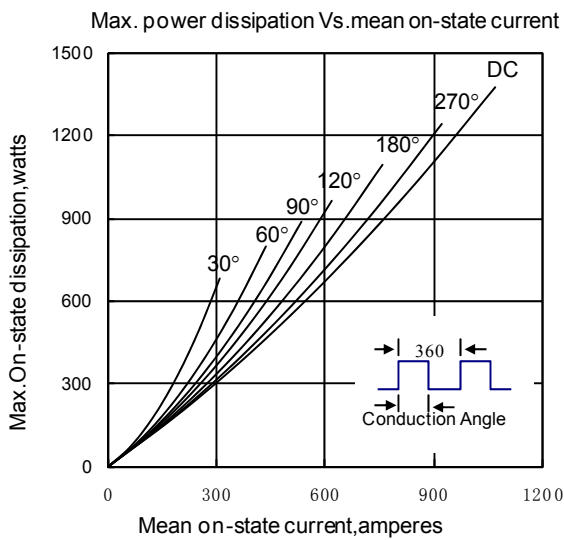


Fig5

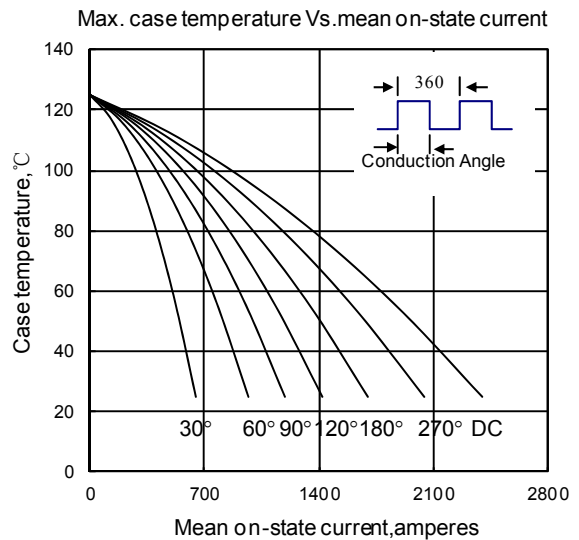


Fig6

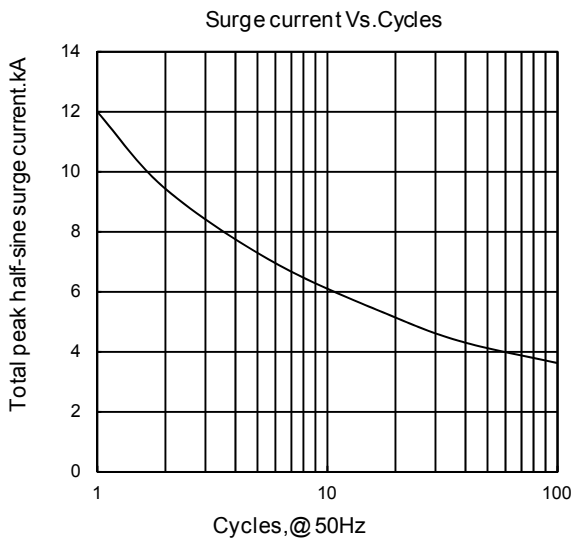


Fig7

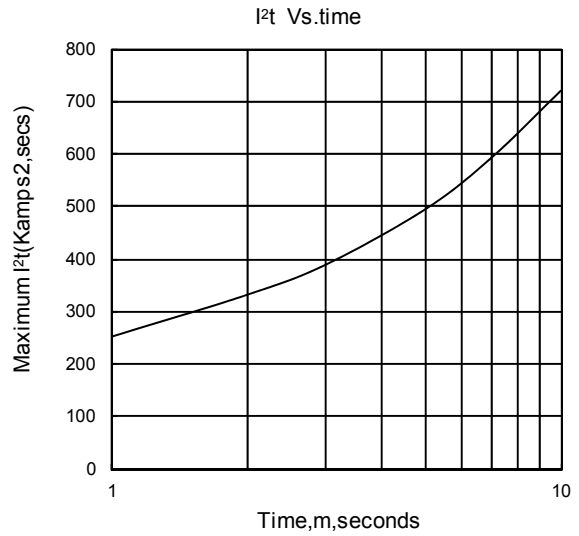


Fig8

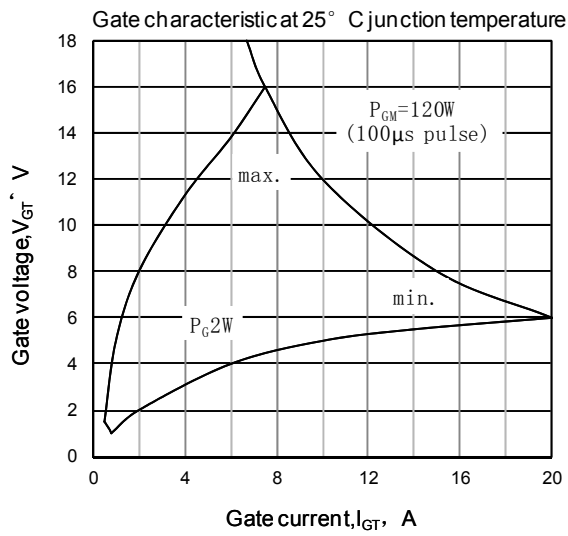


Fig9

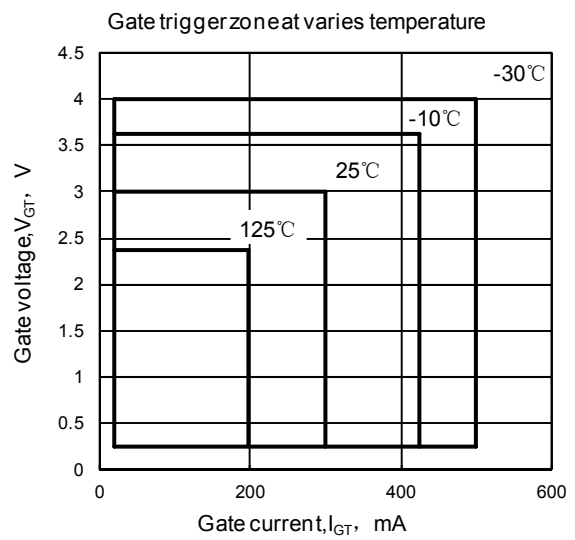


Fig10

Outline:

