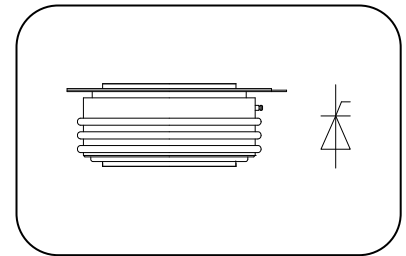




**Features:**

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses
- Short turn-off time
- Hermetic metal cases with ceramic insulators

$I_{T(AV)}$             **800A**  
 $V_{DRM}/V_{RRM}$     **1100~1400V**  
 $t_q$                     **10~16μs**  
 $I_{TSM}$                 **12kA**



**Typical Applications**

- Inductive heating
- Electronic welders
- Self-commutated inverters
- AC motor speed control
- General power switching applications

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> =55°C	125		800	1050	A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak off-state voltage Repetitive peak reverse voltage	V <sub>DRM</sub> &V <sub>RRM</sub> ,tp=10ms V <sub>Dsm</sub> &V <sub>Rsm</sub> = V <sub>DRM</sub> &V <sub>RRM</sub> +100V		125	1100		1400	V
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak off-state current Repetitive peak reverse current	V <sub>D</sub> = V <sub>DRM</sub> V <sub>R</sub> = V <sub>RRM</sub>		125			60	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave V <sub>R</sub> =0.6V <sub>RRM</sub>		125			12	kA
I <sup>2</sup> t	I <sup>2</sup> T for fusing coordination						720	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage			125			1.61	V
r <sub>T</sub>	On-state slop resistance						0.45	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =2400A, F=21kN		25			3.20	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> I <sub>TM</sub> =(2-3)I <sub>T(AV)</sub> , t=5s, Gate pulse t <sub>r</sub> ≤0.5μs I <sub>GM</sub> =1.5A f=50Hz		125			600	A/μs
Q <sub>rr</sub>	Recovery charge	I <sub>TM</sub> =1000A, tp=1000μs, di/dt=-20A/μs, V <sub>R</sub> =100V		125		83	100	μC
t <sub>q</sub>	Circuit commutated turn-off time	I <sub>TM</sub> =1000A, tp=1000μs, V <sub>R</sub> =100V dv/dt=30V/μs ,di/dt=-20A/μs		125	10		16	μs
I <sub>GT</sub>	Gate trigger current			25	30		250	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		400	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <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 21kN					0.024	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink						0.006	
F <sub>m</sub>	Mounting force				18		25	kN
T <sub>stg</sub>	Stored temperature				-40		140	°C
W <sub>i</sub>	Weight					400		g
Outline	KT50cT							

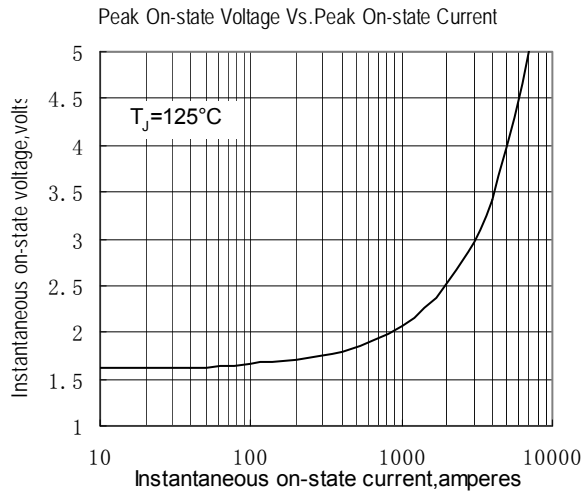


Fig.1

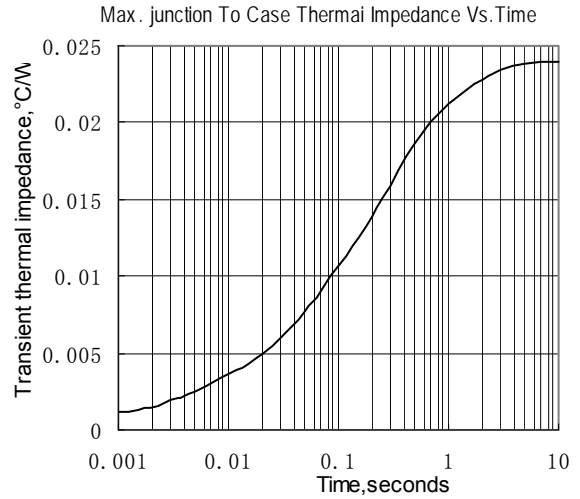


Fig.2

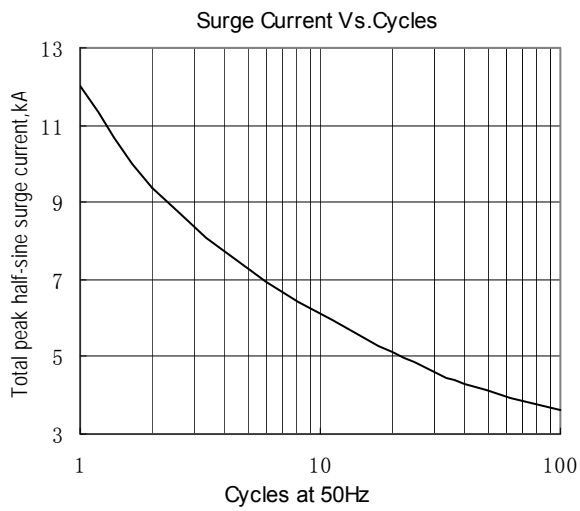


Fig.3

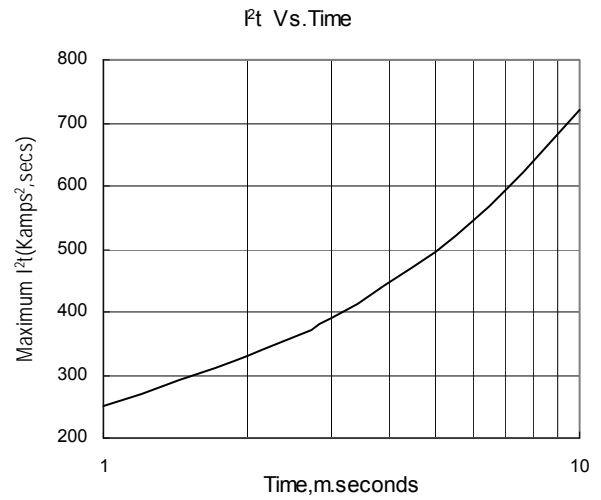


Fig.4

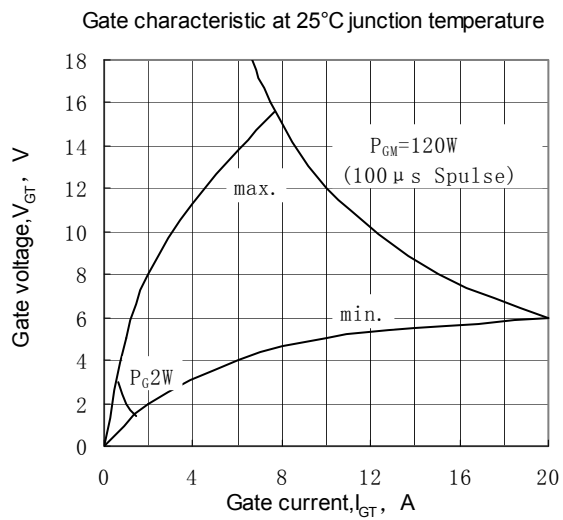


Fig.5

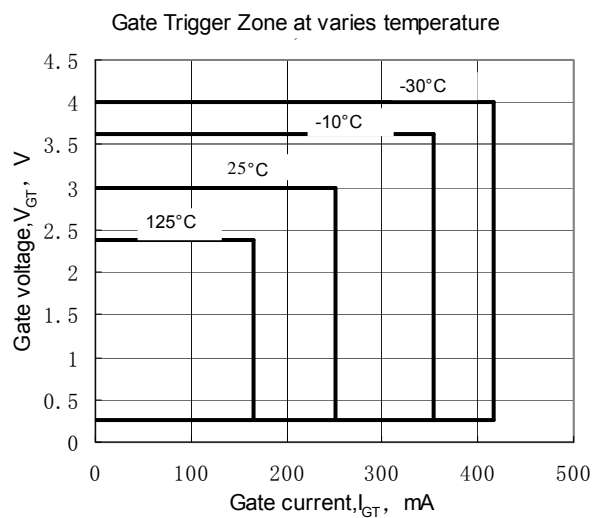
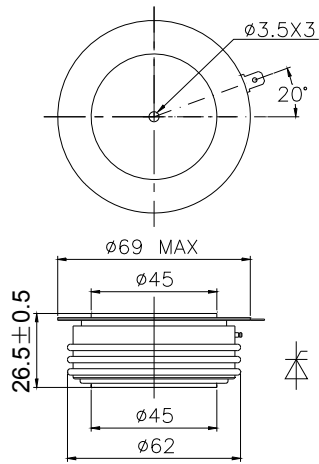


Fig.6

**Outline:**

图7-KT50cT



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