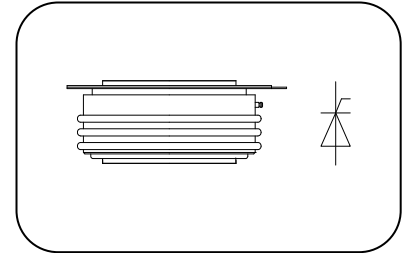




**Features:**

- 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**  
 $V_{DRM}/V_{RRM}$     **1200~1600V**  
 $t_q$                     **14~22μs**  
 $I_{TSM}$                 **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	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled,	T <sub>c</sub> =55°C	125		800	1010	A
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} & V_{RRM}$ , tp=10ms $V_{DSM} & V_{RSM} = V_{DRM} & V_{RRM} + 100V$		125	1200		1600	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak off-state current Repetitive peak reverse current	$V_D = V_{DRM}$ $V_R = V_{RRM}$		125			60	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave		125			12	kA
$I^2t$	I <sup>2</sup> T for fusing coordination	$V_R = 0.6V_{RRM}$					720	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage			125			1.70	V
$r_T$	On-state slop resistance						0.48	mΩ
$V_{TM}$	Peak on-state voltage	$I_{TM} = 2400A$ , F=21kN		25			3.10	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	$V_{DM} = 67\%V_{DRM}$ ITM=(2-3)IT(AV), 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	$I_{TM} = 1000A$ , tp=1000μs, di/dt=-20A/μs, V <sub>R</sub> =100V		125		83	100	μC
t <sub>q</sub>	Circuit commutated turn-off time	$I_{TM} = 1000A$ , tp=1000μs, V <sub>R</sub> =100V dv/dt=30V/μs , di/dt=-20A/μs		125	14		22	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	$V_{DM} = 67\%V_{DRM}$		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>slg</sub>	Stored temperature				-40		140	°C
W <sub>t</sub>	Weight					400		g
Outline	KT50cT							

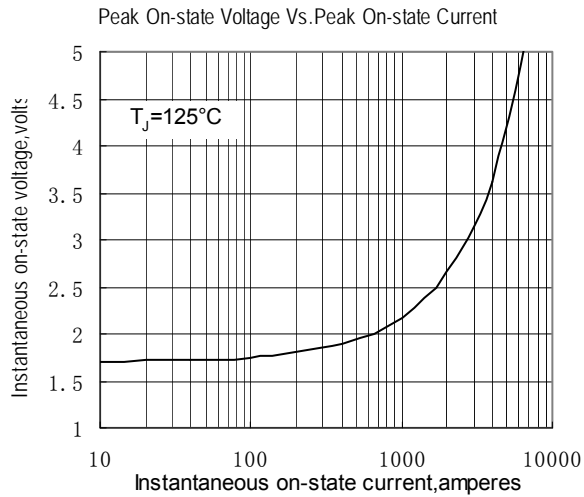


Fig.1

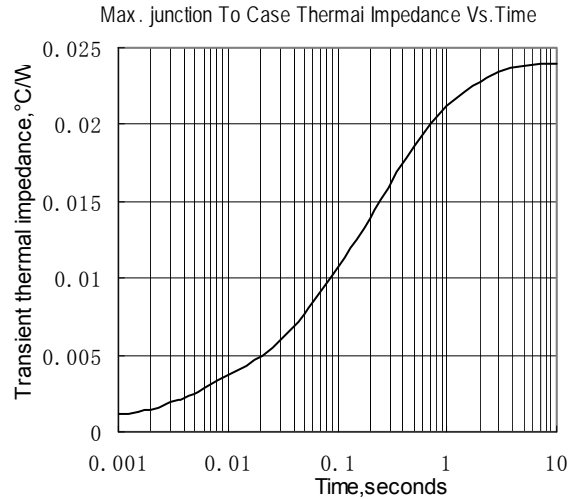


Fig.2

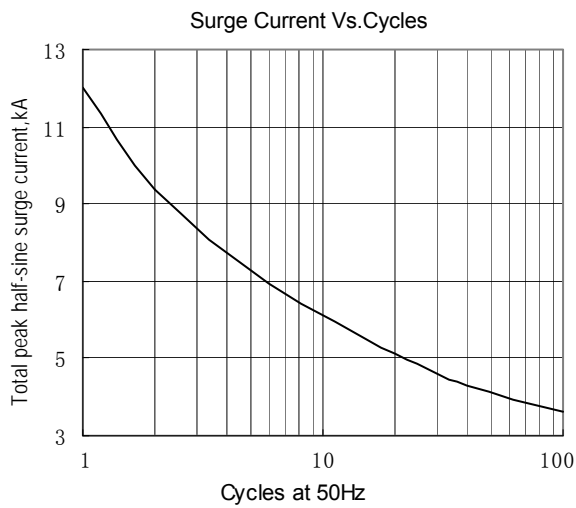


Fig.3

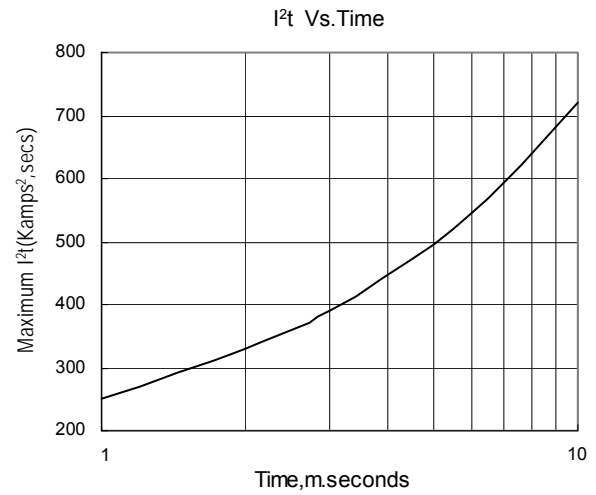


Fig.4

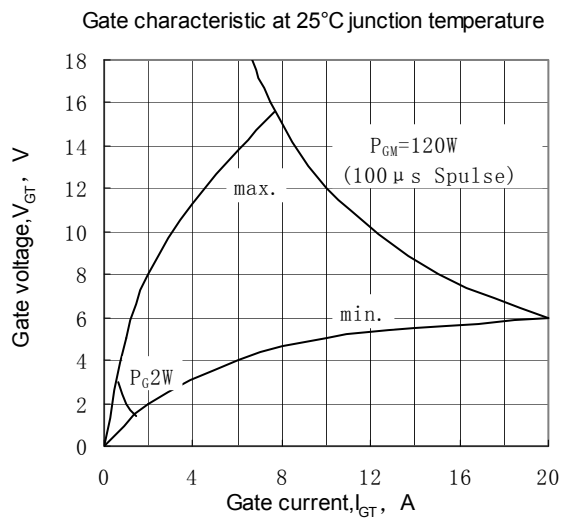


Fig.5

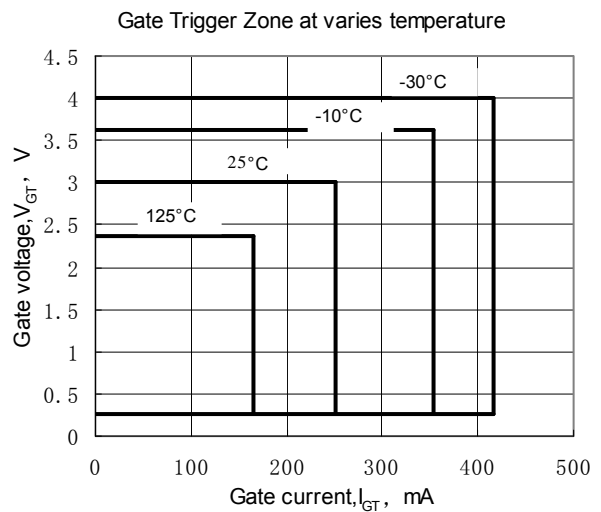
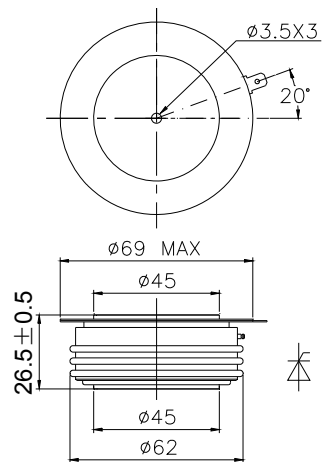


Fig.6



**Outline:**

图7-KT50cT



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