



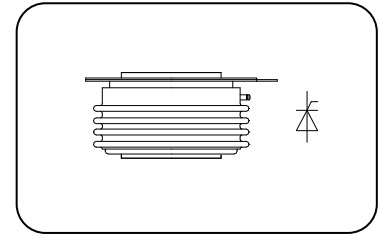
**Features**

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses

**Typical Applications**

- Inductive heating
- Electronic welders
- Self-commutated inverters

**$I_{T(AV)}$  1000A**  
 **$V_{DRM}/V_{RRM}$  2400~3000V**  
 **$t_q$  30~60 $\mu$ s**  
 **$I_{TSM}$  14 kA**  
 **$I^2t$  980 10<sup>3</sup>A<sup>2</sup>S**



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		1000	1100	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	2400		3000	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	$V_D = V_{DRM}$ $V_R = V_{RRM}$	125			80	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave	125			14	kA
$I^2t$	$I^2T$ for fusing coordination	$V_R = 0.6V_{RRM}$				980	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage		125			1.64	V
$r_T$	On-state slop resistance					0.42	mΩ
$V_{TM}$	Peak on-state voltage	$I_{TM} = 3000A$ , F=24kN	25			3.20	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM} = 0.67V_{DRM}$	125			1000	V/ $\mu$ s
di/dt	Critical rate of rise of on-state current	$V_{DM} = 67\%V_{DRM}$ , $I_{TM} = (2-3)I_{T(AV)}$ , t=5s, Gate pulse t <sub>r</sub> ≤ 0.5 $\mu$ s I <sub>GM</sub> =1.5A f=50Hz	125			600	A/ $\mu$ s
Q <sub>rr</sub>	Recovery charge	$I_{TM} = 1000A$ , tp=1000 $\mu$ s, di/dt=-60A/ $\mu$ s, V <sub>R</sub> =100V	125		750		$\mu$ C
t <sub>q</sub>	Circuit commutated turn-off time	$I_{TM} = 1000A$ , tp=1000 $\mu$ s, V <sub>R</sub> = 100V dv/dt=30V/ $\mu$ s , di/dt=-20A/ $\mu$ s	125	30		60	$\mu$ s
$I_{GT}$	Gate trigger current	$V_A = 12V$ , I <sub>A</sub> =1A	25	40		200	mA
$V_{GT}$	Gate trigger voltage			0.9		2.5	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 heat sink					0.005	
F <sub>m</sub>	Mounting force			19		26	kN
T <sub>stg</sub>	Stored temperature			-40		140	°C
W <sub>i</sub>	Weight				470		g
Outline	KT55cT						

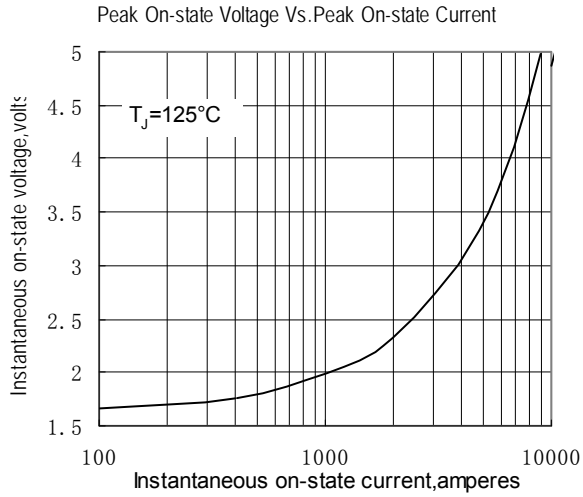


Fig.1

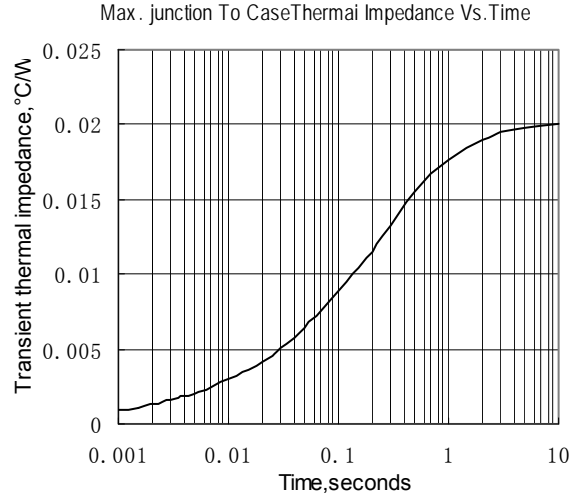


Fig.2

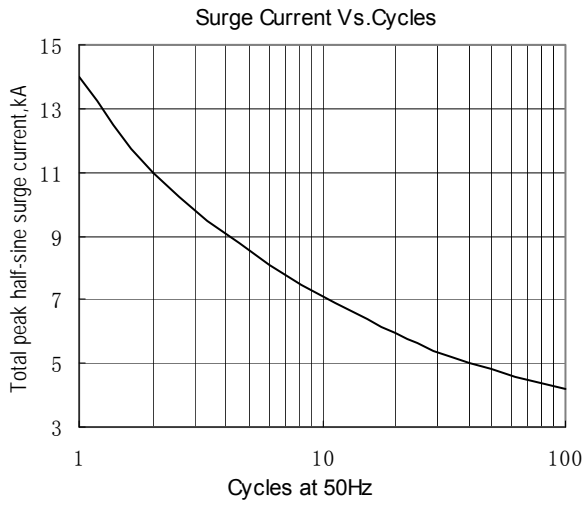


Fig.3

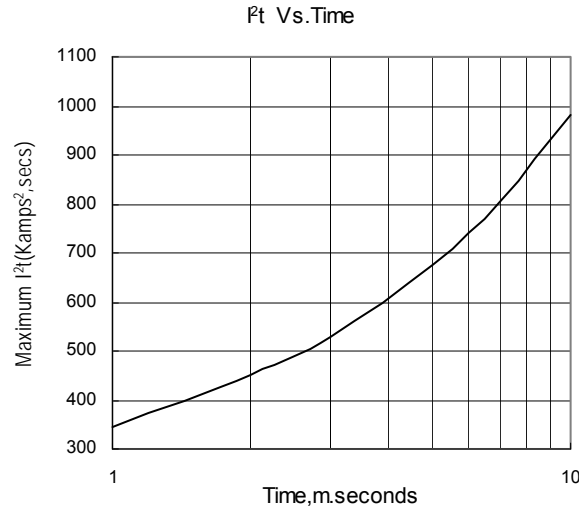


Fig.4

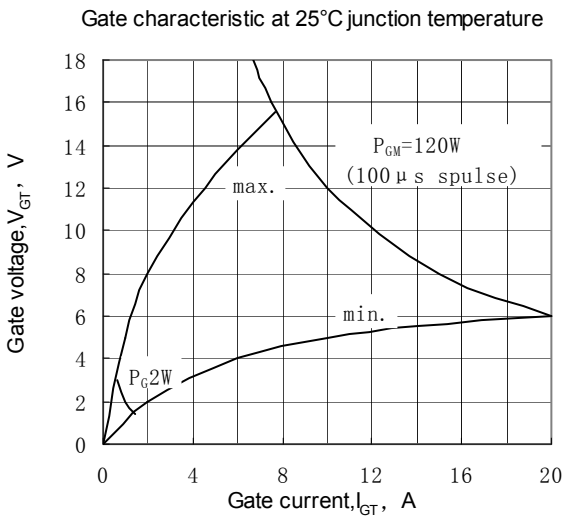


Fig.5

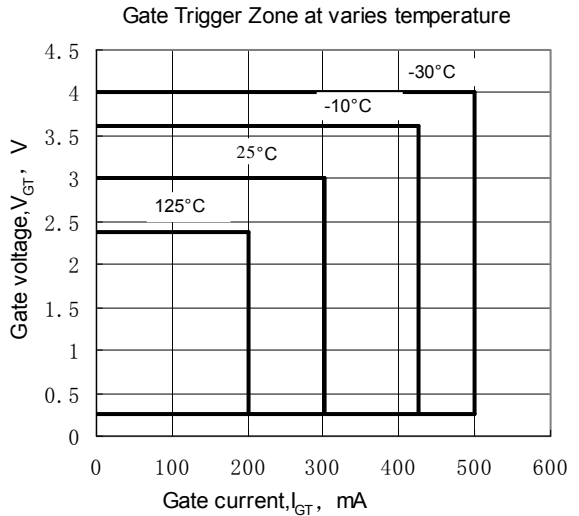
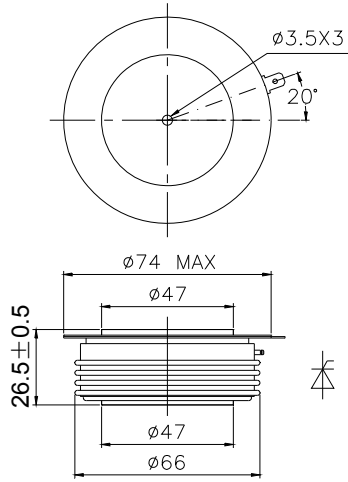


Fig.6



**Outline:**

图8-KT55cT



地 址 Address: 辽宁省锦州市滨海新区黔江街21号

邮 编 Zipcode: 121007

电 话 Telephone: 0416-2936666 18840127688

传 真 Fax: 0416-2936888

网 址 Web Sit: <http://www.power-semi.com>

电子邮箱 Email: 13904168481@126.com