



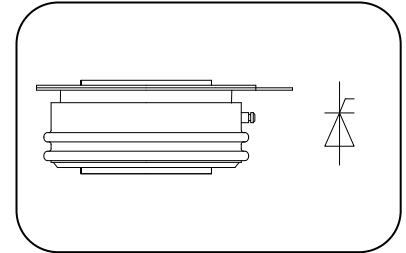
**Features**

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

**Typical Applications**

- Inductive heating
- Electronic welders
- Self-commutated inverters

**$I_{T(AV)}$  1800A**  
 **$V_{DRM}/V_{RRM}$  1900~2200V**  
 **$t_q$  22~42 $\mu$ s**  
 **$I_{TSM}$  21 kA**  
 **$I^2t$  2205 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		1800	2080	A
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DM} \& V_{RRM}$ , t <sub>p</sub> =10ms $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100V$	125	1900		2200	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	$V_D = V_{DRM}$ $V_R = V_{RRM}$	125			140	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave	125			21	kA
$I^2t$	I <sup>2</sup> t for fusing coordination					2205	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage		125			1.41	V
$r_T$	On-state slop resistance					0.23	mΩ
$V_{TM}$	Peak on-state voltage	$I_{TM}=4000A$ , F=32kN	25			3.15	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	$I_{TM}=1800A$ , t <sub>p</sub> =1000 $\mu$ s, di/dt=-20A/ $\mu$ s, V <sub>R</sub> =100V	125		860		$\mu$ C
t <sub>q</sub>	Circuit commutated turn-off time	$I_{TM}=1800A$ , t <sub>p</sub> =1000 $\mu$ s, V <sub>R</sub> =100V dv/dt=30V/ $\mu$ s, di/dt=-20A/ $\mu$ s	125	22		42	$\mu$ s
I <sub>GT</sub>	Gate trigger current	$V_A=12V$ , I <sub>A</sub> =1A	25	40		250	mA
V <sub>GT</sub>	Gate trigger voltage			0.9		2.5	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 32kN				0.013	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink					0.0035	
F <sub>m</sub>	Mounting force			27		36	kN
T <sub>stg</sub>	Stored temperature			-40		140	°C
W <sub>t</sub>	Weight				820/1080		g
Outline	KT70cT/dT						

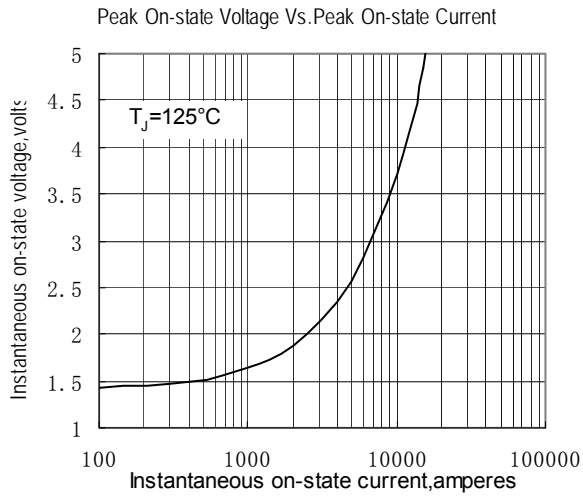


Fig.1

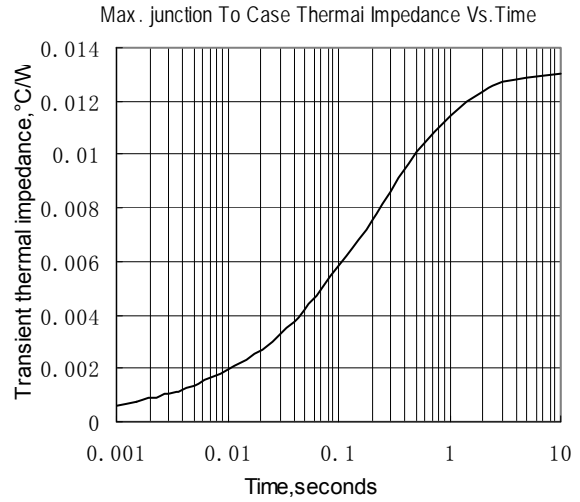


Fig.2

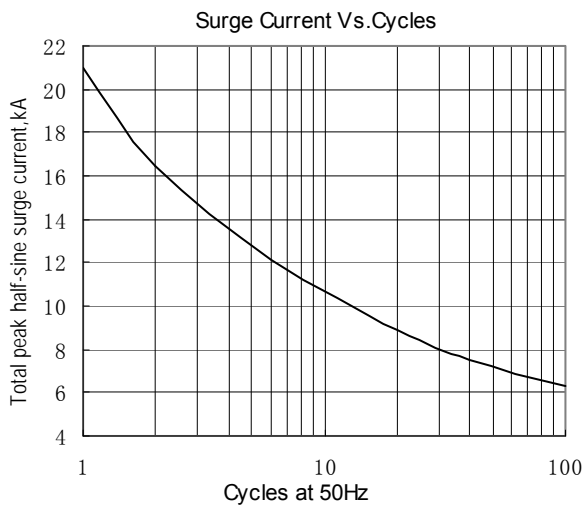


Fig.3

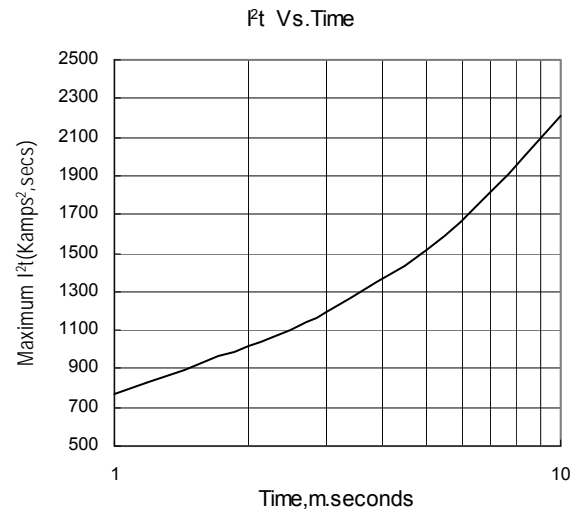


Fig.4

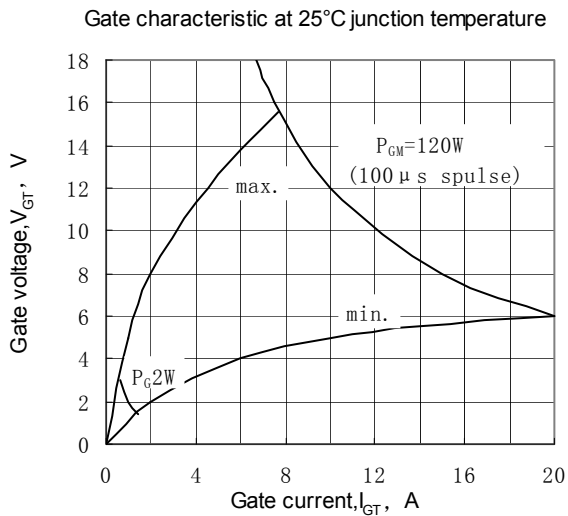


Fig.5

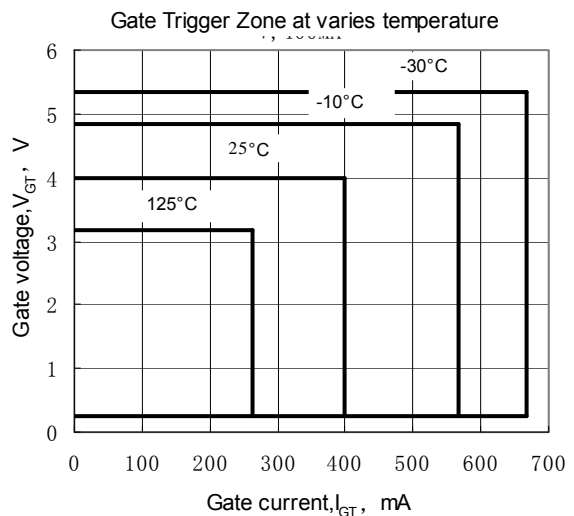


Fig.6



**Outline:**

图12-KT70cT

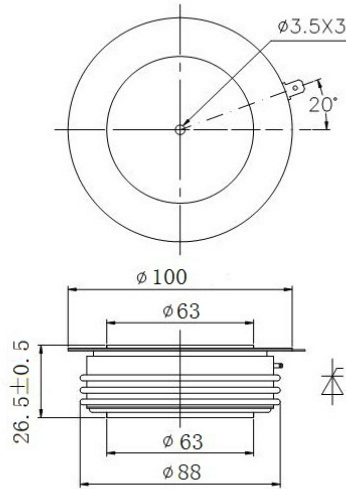
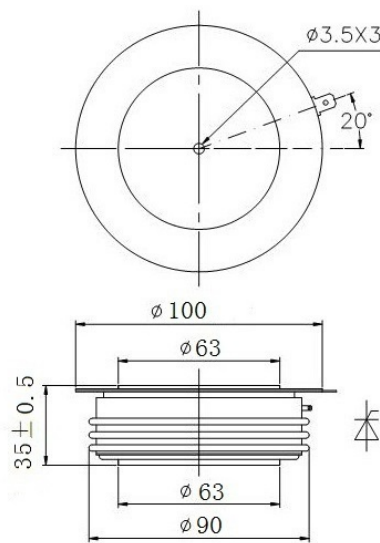


图13-KT70dT



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