



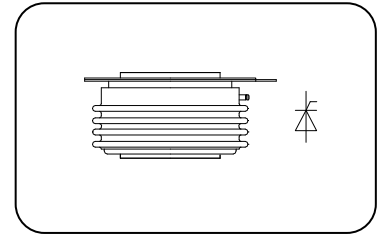
**Features**

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

**Typical Applications**

- Inductive heating
- Electronic welders
- Self-commutated inverters

**$I_{T(AV)}$  2500A**  
 **$V_{DRM}/V_{RRM}$  1200~1800V**  
 **$t_q$  18~37 $\mu$ s**  
 **$I_{TSM}$  35.6 kA**  
 **$I^2t$  6337 10<sup>3</sup>A<sup>2</sup>S**



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT	
				Min	Type	Max		
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, $T_c=55^{\circ}C$	125		2500	2940	A	
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ , $t_p=10ms$ $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100V$	125	1200		1800	V	
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	$V_D = V_{DRM}$ $V_R = V_{RRM}$	125			200	mA	
$I_{TSM}$	Surge on-state current	10ms half sine wave	125			35.6	kA	
$I^2t$	$I^2T$ for fusing coordination	$V_R = 0.6V_{RRM}$				6337	A <sup>2</sup> s*10 <sup>3</sup>	
$V_{TO}$	Threshold voltage		125			1.30	V	
$r_T$	On-state slop resistance					0.15	m $\Omega$	
$V_{TM}$	Peak on-state voltage	$I_{TM}=5000A$ , $F=40kN$	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	$V_{DM}=67\%V_{DRM}$ , $I_{TM}$ to 4000A, $t=5s$ , Gate pulse $t_r \leq 0.5\mu s$ , $I_{GM}=1.5A$ , $f=50Hz$	125			600	A/ $\mu$ s	
$Q_{rr}$	Recovery charge	$I_{TM}=2000A$ , $t_p=1000\mu s$ , $di/dt=-20A/\mu s$ , $V_R=100V$	125		1000		$\mu C$	
$t_q$	Circuit commutated turn-off time	$I_{TM}=2000A$ , $t_p=1000\mu s$ , $V_R=100V$ $dv/dt=30V/\mu s$ , $di/dt=-20A/\mu s$	125	18		37	$\mu s$	
$I_{GT}$	Gate trigger current	$V_A=12V$ , $I_A=1A$			40		250	mA
$V_{GT}$	Gate trigger voltage					0.9		2.5
$I_H$	Holding current				20		400	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 40kN				0.010	$^{\circ}C/W$	
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.003		
$F_m$	Mounting force			35		47	kN	
$T_{stg}$	Stored temperature			-40		140	$^{\circ}C$	
$W_t$	Weight				1100/1500		g	
Outline	KT80cT/dT							

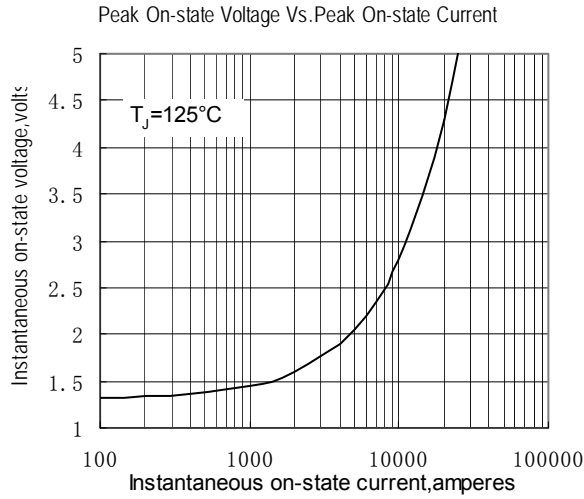


Fig.1

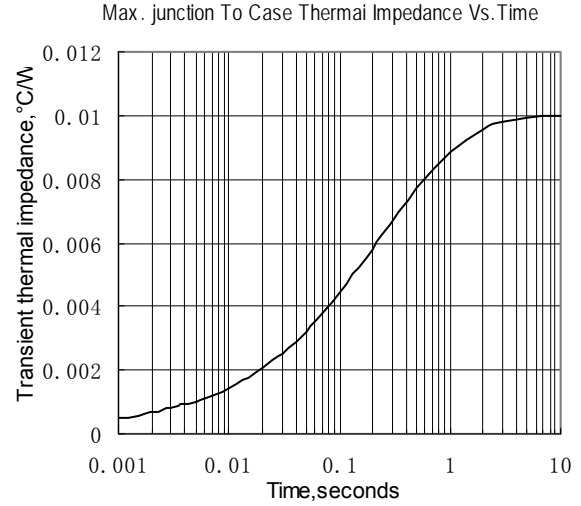


Fig.2

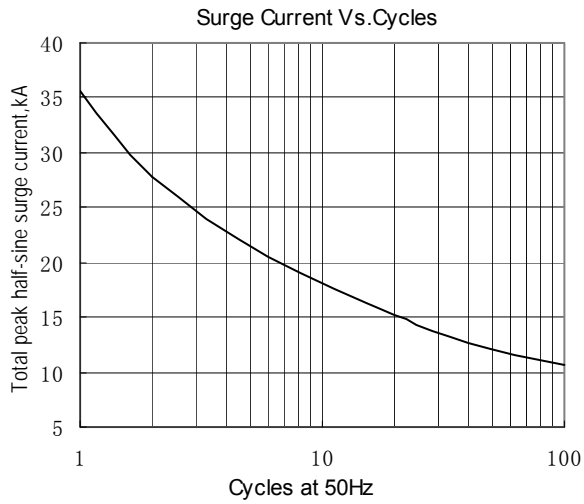


Fig.3

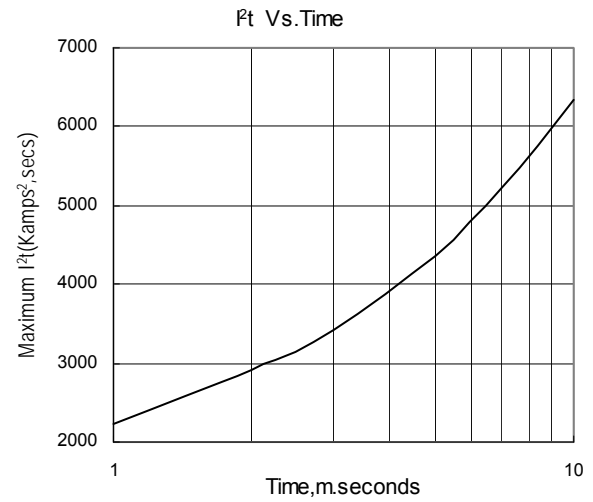


Fig.4

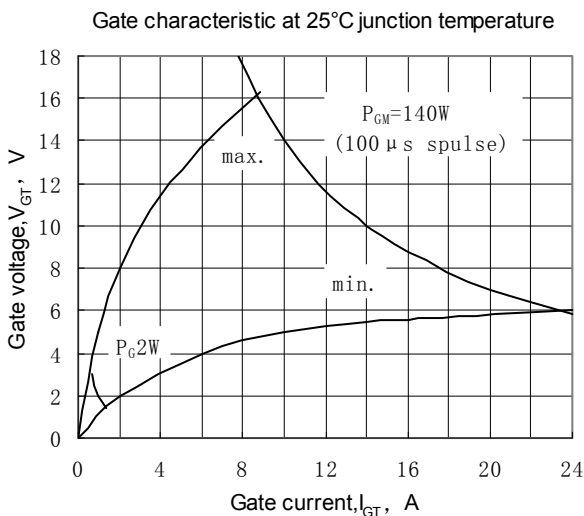


Fig.5

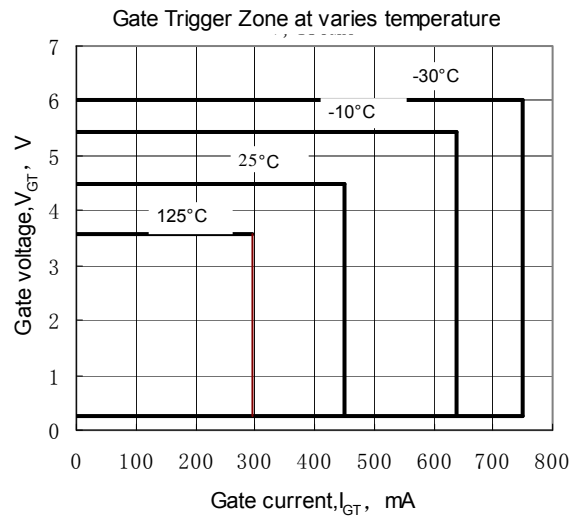


Fig.6



Outline:

图17-KT80cT

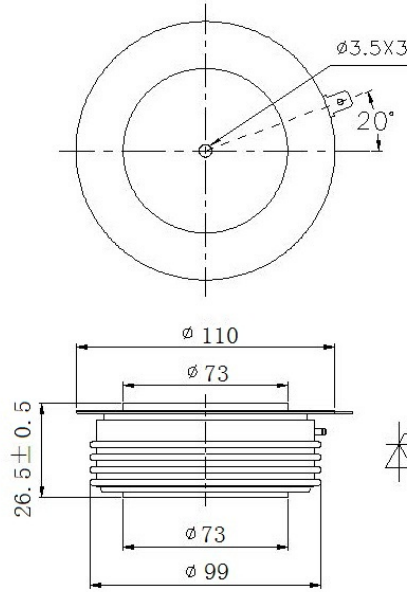
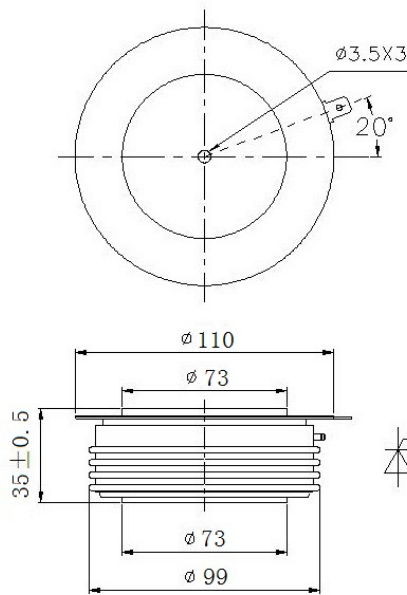


图18-KT80dT



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