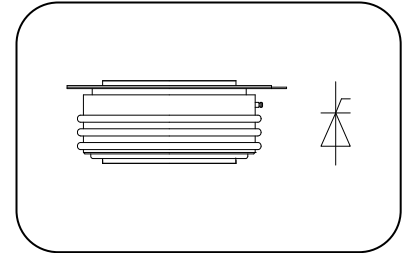




**Features:**

- 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**  
 **$V_{DRM}/V_{RRM}$  600~900V**  
 **$t_q$  6~9 $\mu$ s**  
 **$I_{TSM}$  9.6kA**



**Typical Applications**

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

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		800	1210	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	600		900	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			9.6	kA	
$I^2t$	$I^2t$ for fusing coordination	$V_R = 0.6V_{RRM}$					461	$A^2s \cdot 10^3$	
$V_{TO}$	Threshold voltage			125			1.44	V	
$r_T$	On-state slop resistance						0.33	m $\Omega$	
$V_{TM}$	Peak on-state voltage	$I_{TM}=2400A$ , $F=21kN$		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 $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$ $f=50Hz$		125			600	A/ $\mu$ s	
$Q_{rr}$	Recovery charge	$I_{TM}=1000A$ , $t_p=1000\mu s$ , $di/dt=-20A/\mu s$ , $V_R=100V$		125		83	100	$\mu C$	
$t_q$	Circuit commutated turn-off time	$I_{TM}=1000A$ , $t_p=1000\mu s$ , $V_R=100V$ $dv/dt=30V/\mu s$ , $di/dt=-20A/\mu s$		125	6		9	$\mu s$	
$I_{GT}$	Gate trigger current					30		250	mA
$V_{GT}$	Gate trigger voltage	$V_A=12V$ , $I_A=1A$			25	0.8		3.0	V
$I_H$	Holding current			125	20		400	mA	
$V_{GD}$	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$					0.3	V	
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 21kN					0.024	$^{\circ}C/W$	
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.006		
$F_m$	Mounting force				18		25	kN	
$T_{stg}$	Stored temperature				-40		140	$^{\circ}C$	
$W_t$	Weight					400		g	
Outline	KT50cT								

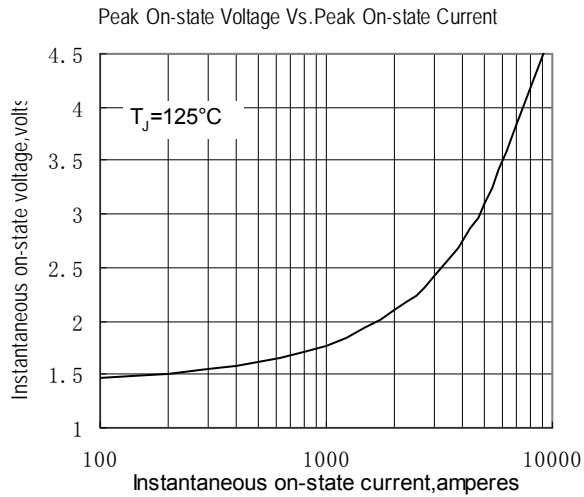


Fig.1

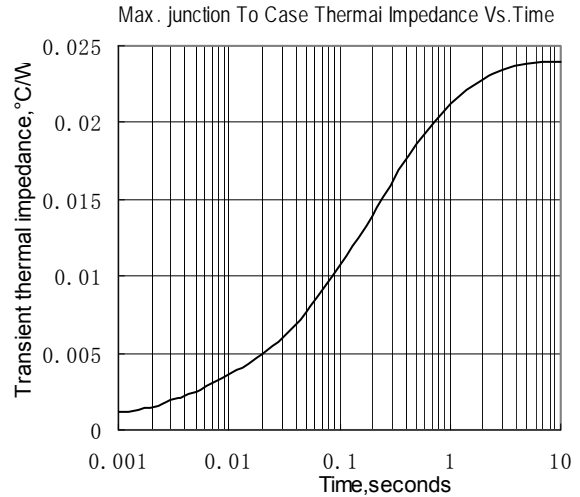


Fig.2

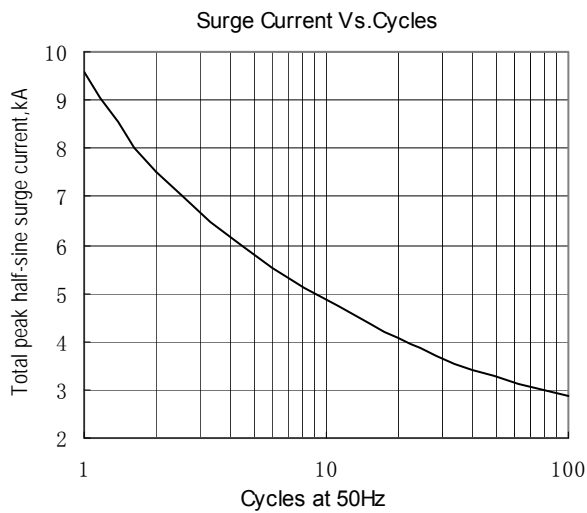


Fig.3

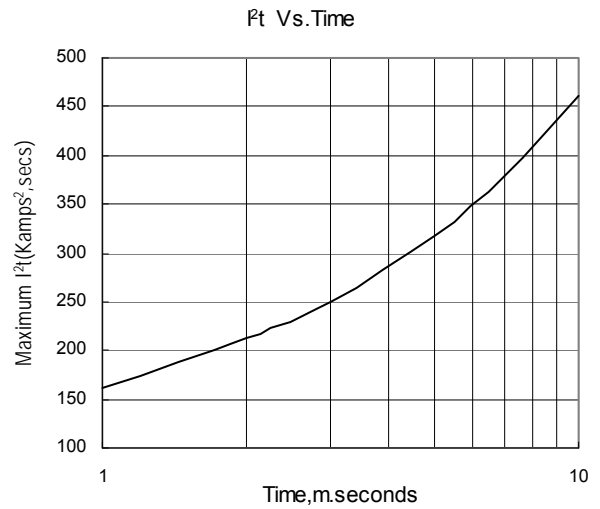


Fig.4

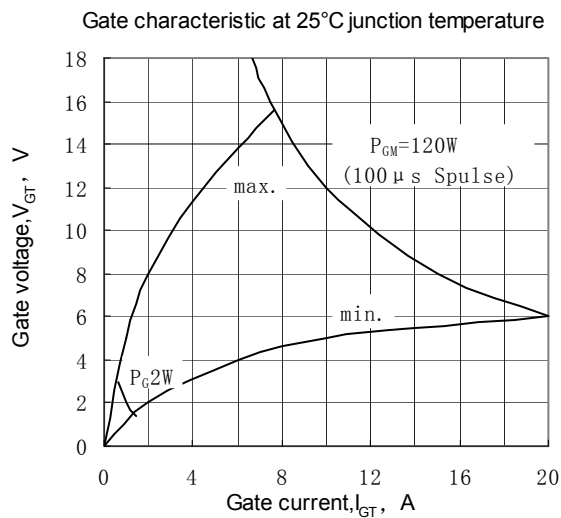


Fig.5

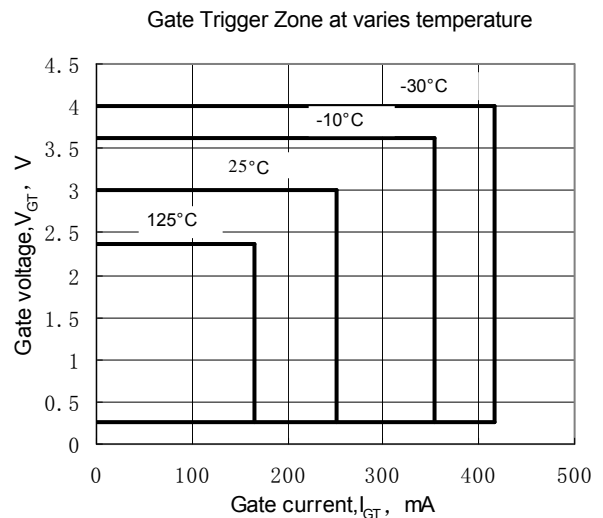
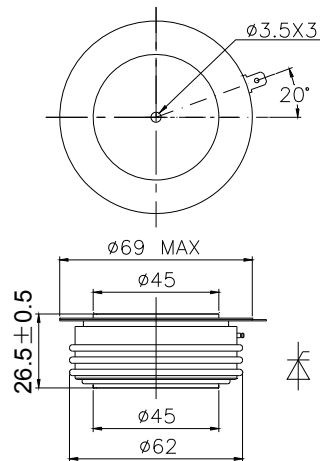


Fig.6



**Outline:**

图7-KT50cT



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