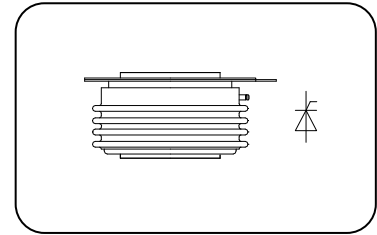




**Features:**

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses
- Short turn-off time
- Hermetic metal cases with ceramic insulators

**$I_{T(AV)}$  500A**  
 **$V_{DRM}/V_{RRM}$  800~1200V**  
 **$t_q$  8~14 $\mu$ s**  
 **$I_{TSM}$  8.9kA**



**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,	125			700	A
						470	
						600	
$V_{DRM}$ $V_{RRM}$	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	800		1200	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak off-state current Repetitive peak reverse current	$V_D = V_{DRM}$ $V_R = V_{RRM}$	125			40	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave	125			8.9	kKA
$I^2t$	$I^2t$ for fusing coordination	$V_R = 0.6V_{RRM}$				396	$A^2s \cdot 10^3$
$V_{TO}$	Threshold voltage		125			1.68	V
$r_T$	On-state slop resistance					0.67	m $\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM}=1500A$ , $F=18kN$	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		33	50	$\mu C$
$t_q$	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	8		14	$\mu s$
$I_{GT}$	Gate trigger current		25	30		250	mA
$V_{GT}$	Gate trigger voltage	$V_A=12V$ , $I_A=1A$		0.8		3.0	V
$I_H$	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 18kN				0.035	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.008	
$F_m$	Mounting force			15		20	kN
$T_{stg}$	Stored temperature			-40		140	$^{\circ}C$
$W_t$	Weight				260/320		g
Outline	KT40cTKT45cT						

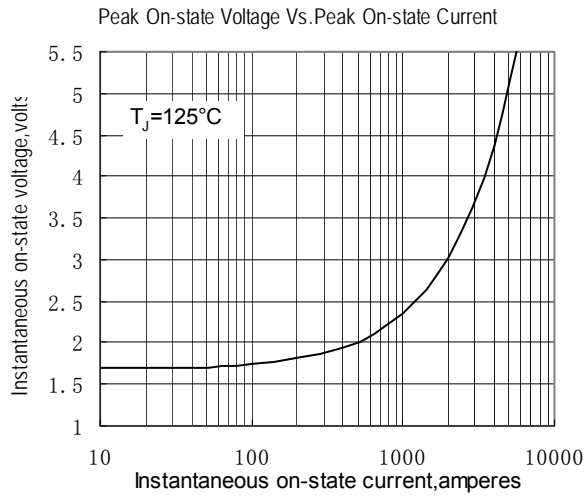


Fig.1

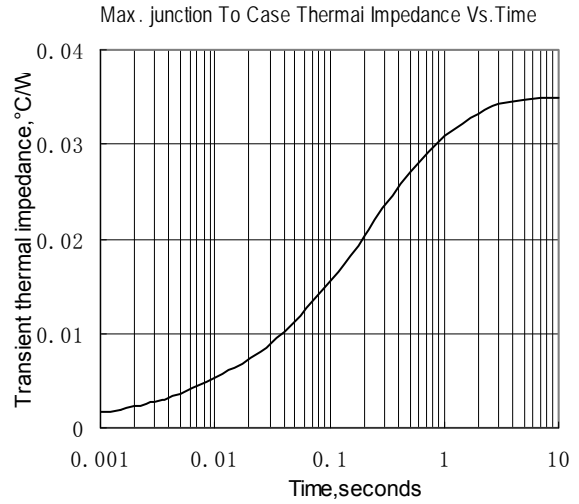


Fig.2

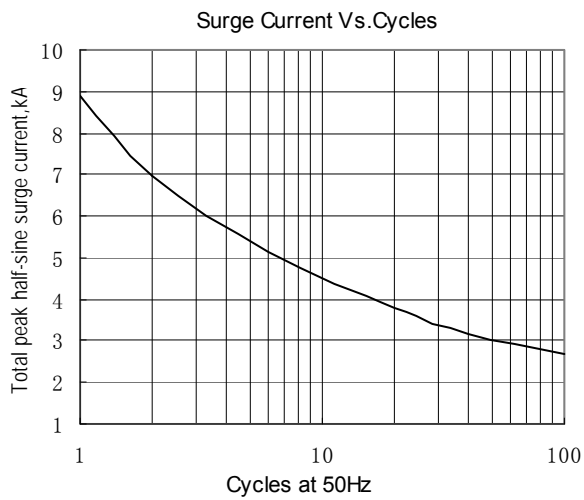


Fig.3

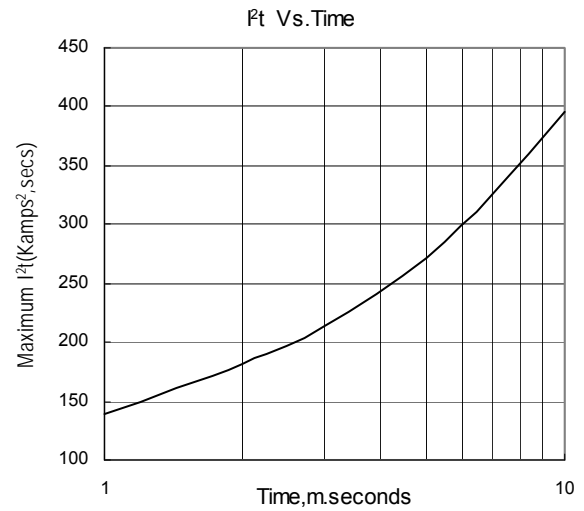


Fig.4

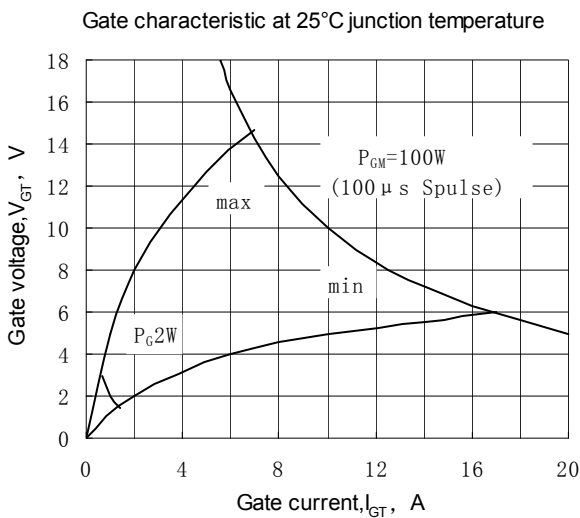


Fig.5

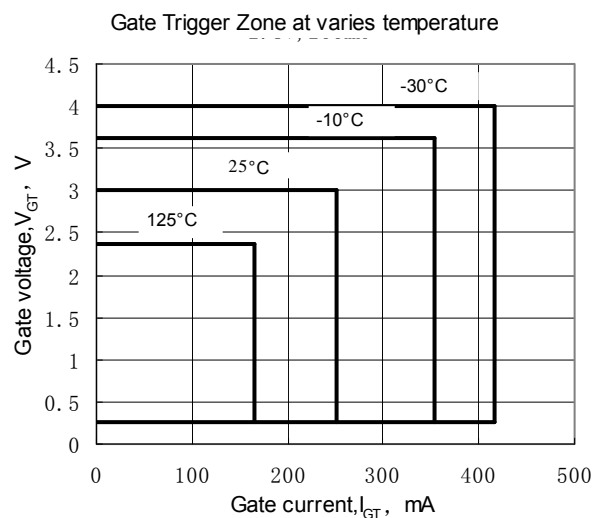


Fig.6



**Outline:**

图4-KT40cT

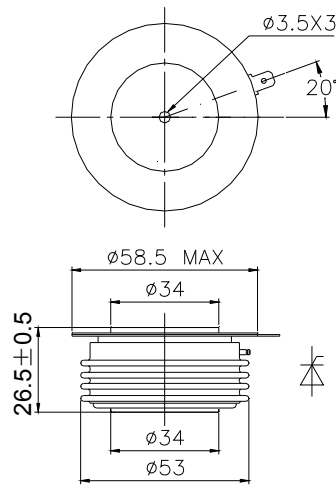
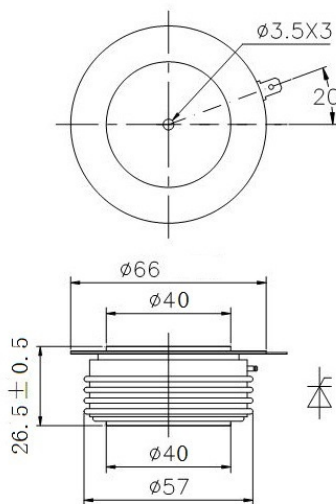


图6-KT45cT



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