



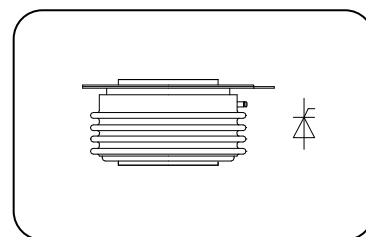
Features:

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

Typical Applications

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

$I_{T(AV)}$ 500A
 V_{DRM}/V_{RRM} 1200~1600V
 t_q 14~22 μ s
 I_{TSM} 10kA



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		500	900	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		1600	V
I_{DRM} I_{RRM}	Repetitive peak off-state current Repetitive peak reverse current	$V_D = V_{DRM}$ $V_R = V_{RRM}$	125			50	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			10	kA
I^2t	I^2t for fusing coordination	$V_R = 0.6V_{RRM}$				500	$A^2s \cdot 10^3$
V_{TO}	Threshold voltage		125			1.70	V
r_T	On-state slop resistance					0.48	m Ω
V_{TM}	Peak on-state voltage	$I_{TM}=1500A$, $F=18kN$	25			3.10	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			1000	V/ μ 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/ μ s
Q_{rr}	Recovery charge	$I_{TM}=1000A$, $t_p=1000\mu s$, $di/dt=-20A/\mu s$, $V_R=100V$	125		33	50	μC
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	14		22	μs
I_{GT}	Gate trigger current	$V_A=12V$, $I_A=1A$	25	30		250	mA
V_{GT}	Gate trigger voltage			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				0.028	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.0075	
F_m	Mounting force			15		20	kN
T_{stg}	Stored temperature			-40		140	$^{\circ}C$
W_t	Weight				320		g
Outline	KT45cT						

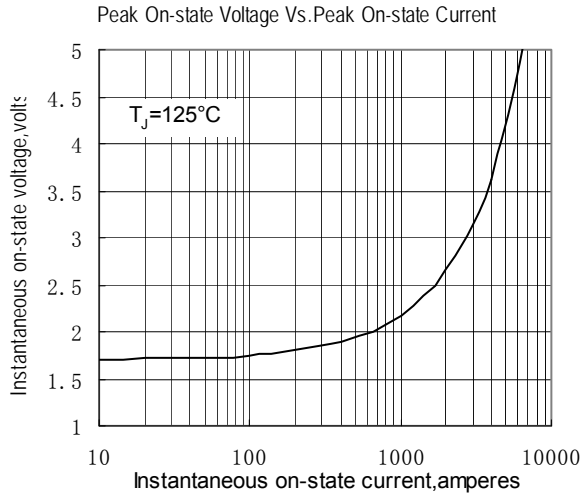


Fig.1

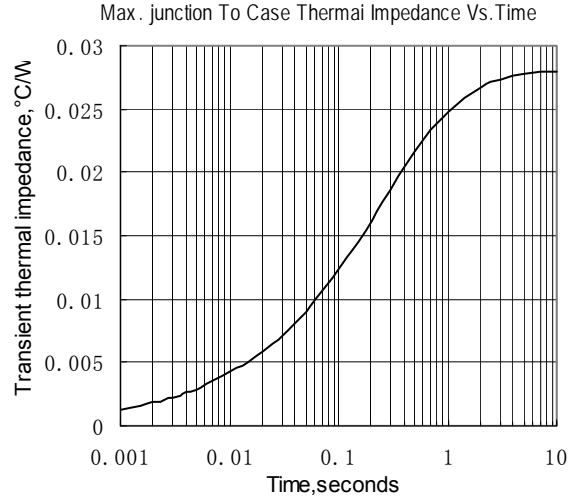


Fig.2

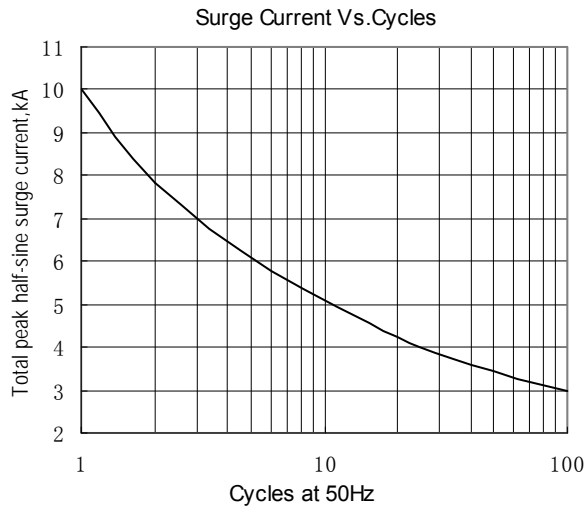


Fig.3

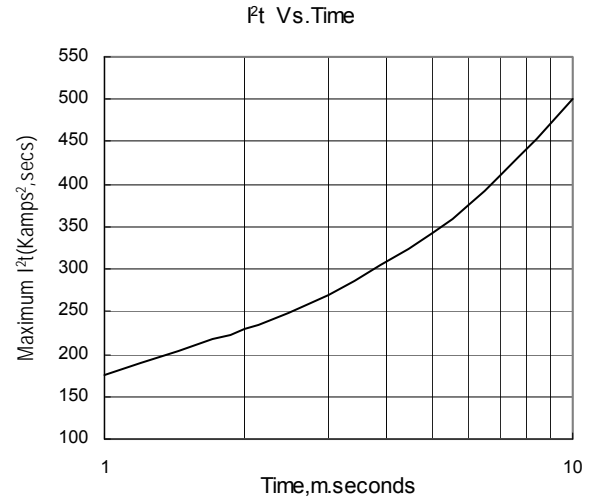


Fig.4

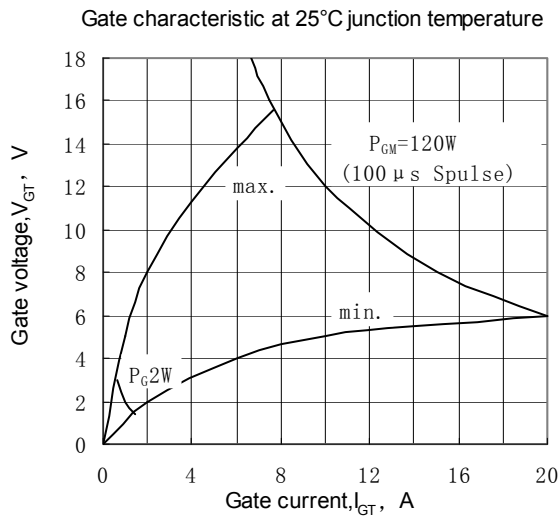


Fig.5

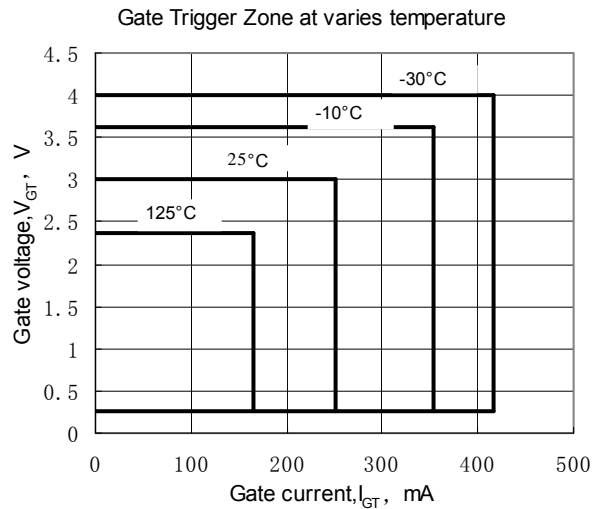
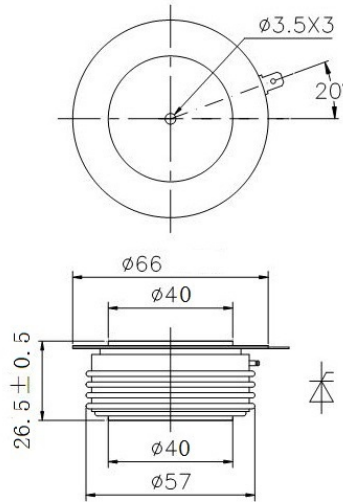


Fig.6



Outline:

图6-KT45cT



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