



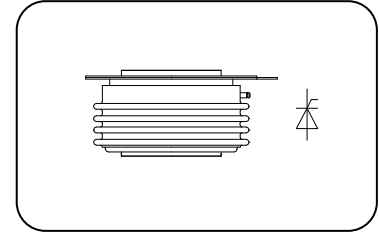
Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$ 500A
 V_{DRM}/V_{RRM} 1200~1800V
 t_q 16~35 μ s
 I_{TSM} 9.0kA
 I^2t 405 10³A²S



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	820	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			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			9.0	kA
I^2t	I^2T for fusing coordination	$V_R = 0.6V_{RRM}$				405	A ² S*10 ³
V_{TO}	Threshold voltage		125			1.36	V
r_T	On-state slop resistance					0.53	m Ω
V_{TM}	Peak on-state voltage	$I_{TM}=1500A, F=18kN$	25			3.15	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			300	A/ μ s
Q_{rr}	Recovery charge	$I_{TM}=1000A, t_p=1000\mu s$, $di/dt=-20A/\mu s, V_R=100V$	125		460		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	16		35	μs
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$	25	40		250	mA
V_{GT}	Gate trigger voltage			0.9		2.5	V
I_H	Holding current			20		300	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	KT40cT/KT45cT						

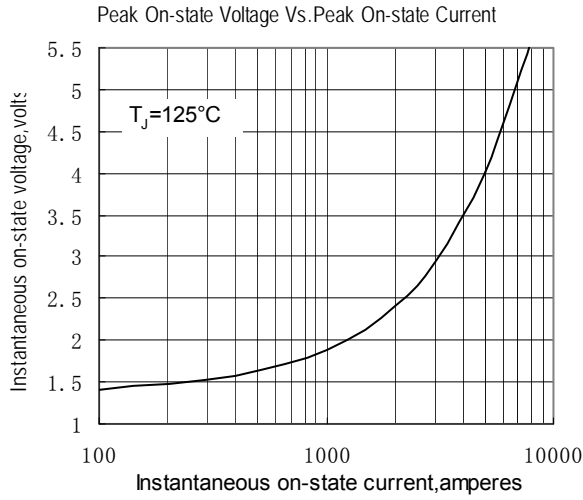


Fig.1

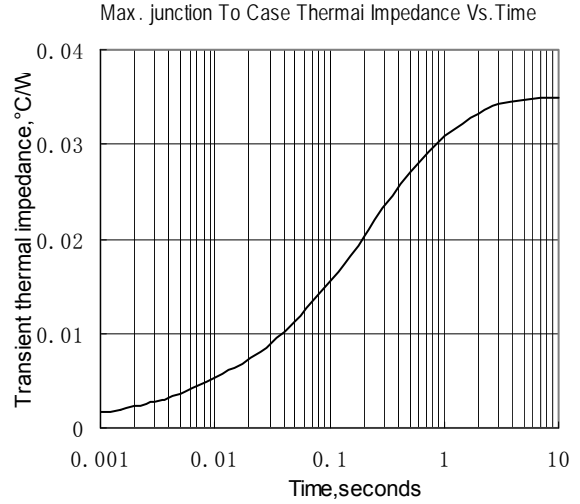


Fig.2

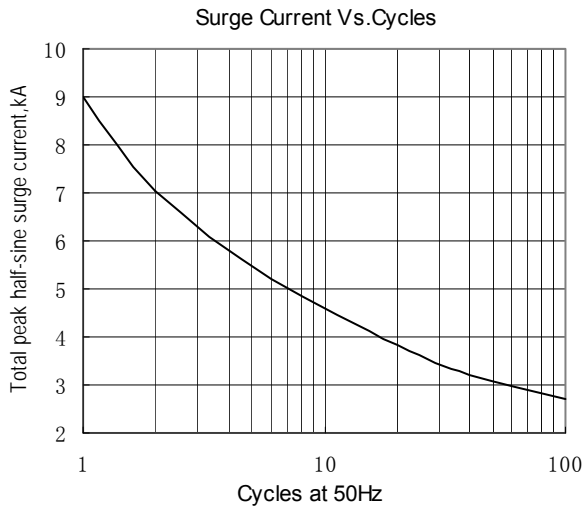


Fig.3

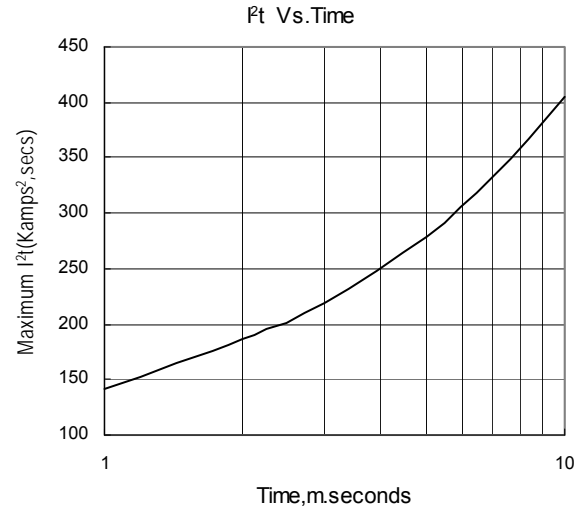


Fig.4

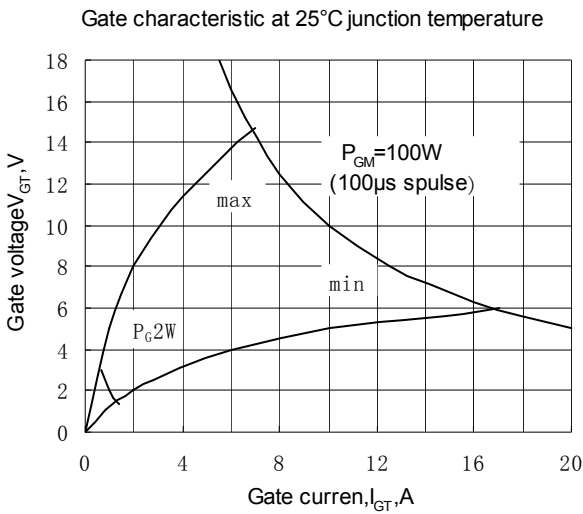


Fig.5

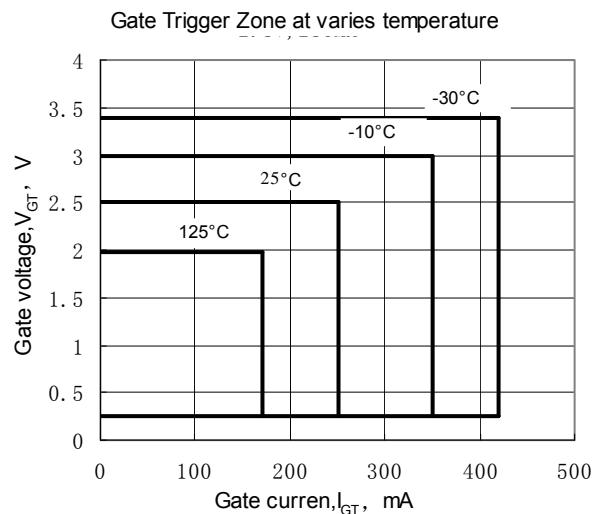


Fig.6



Outline:

图4-KT40cT

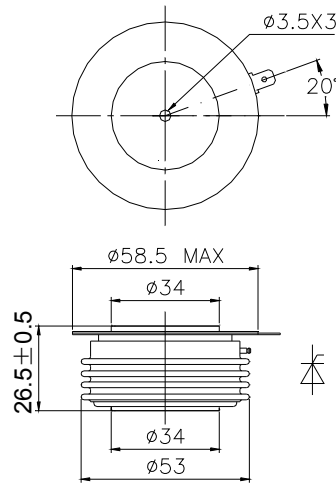
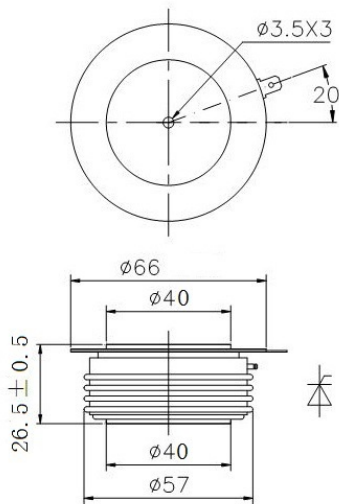


图6-KT45cT



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