



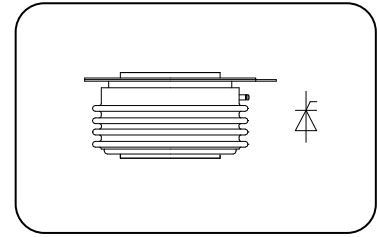
**Features:**

- 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**  
 **$V_{DRM}/V_{RRM}$  1100~1400V**  
 **$t_q$  10~16 $\mu$ s**  
 **$I_{TSM}$  9.3kA**



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	670	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	1100		1400	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 $V_R = 0.6V_{RRM}$		125			9.3	kA
$I^2t$	$I^2t$ for fusing coordination						432	$A^2s \cdot 10^3$
$V_{TO}$	Threshold voltage			125			1.50	V
$r_T$	On-state slop resistance						0.88	m $\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM}=1500A$ , $F=18kN$		25			3.2	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	10		16	$\mu s$
$I_{GT}$	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 15kN					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							

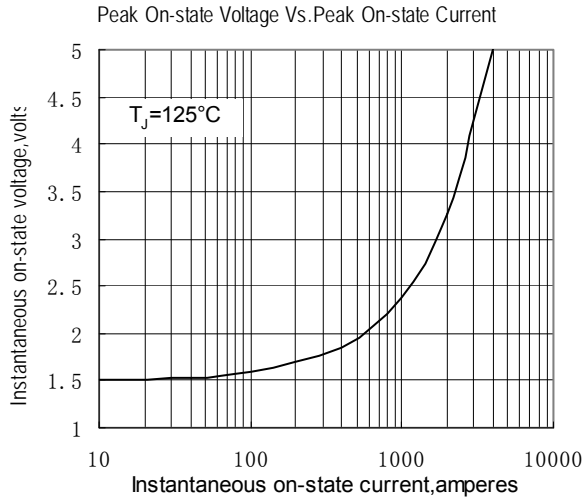


Fig.1

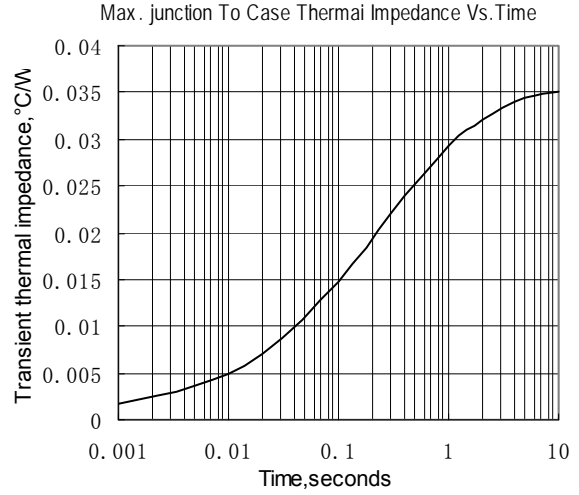


Fig.2

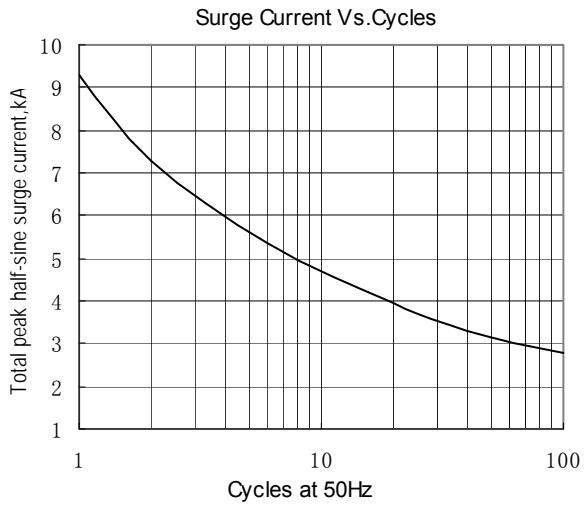


Fig.3

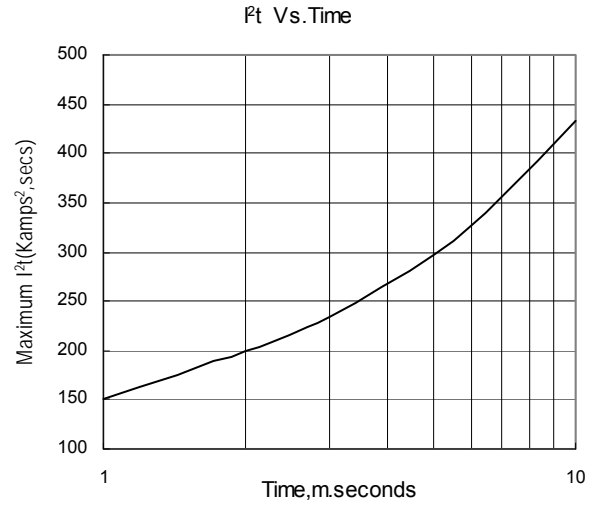


Fig.4

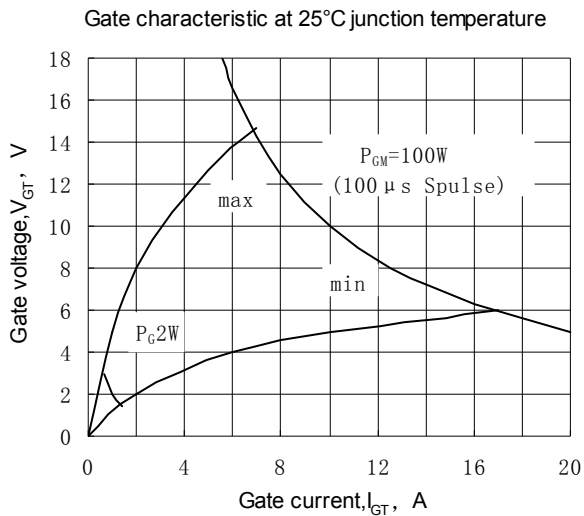


Fig.5

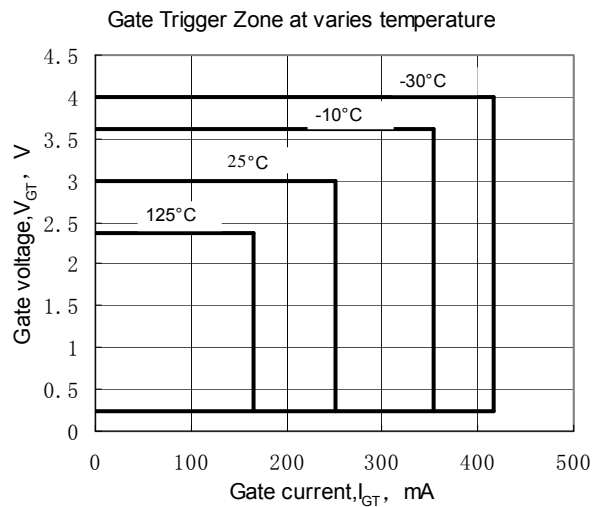
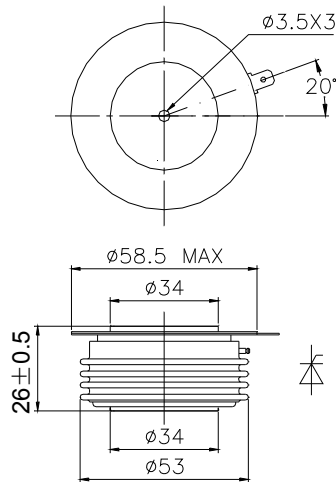


Fig.6



Outline:



地 址 Address: 辽宁省锦州市滨海新区黔江街21号

邮 编 Zipcode: 121007

电 话 Telephone: 0416-2936666 18840127688

传 真 Fax: 0416-2936888

网 址 Web Sit: <http://www.power-semi.com>

电子邮箱 Email: 13904168481@126.com