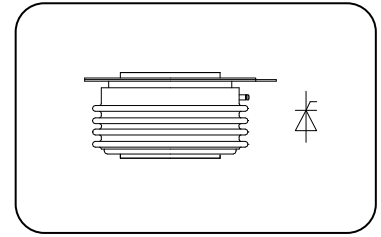




**Features:**

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

$I_{T(AV)}$       **1000A**  
 $V_{DRM}/V_{RRM}$     **800~1200V**  
 $t_q$               **8~14μs**  
 $I_{TSM}$           **15 kA**



**Typical Applications**

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS		T <sub>j</sub> (°C)	VALUE			UNIT
					Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled,	T <sub>C</sub> =55°C	125		1000	1430	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	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			80	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave		125			15	kA
$I^2t$	I <sup>2</sup> T for fusing coordination	$V_R = 0.6V_{RRM}$					1125	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage			125			1.32	V
$r_T$	On-state slop resistance						0.32	mΩ
$V_{TM}$	Peak on-state voltage	$I_{TM}=3000A, F=24kN$		25			3.20	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			1000	V/μs
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/μs
$Q_{rr}$	Recovery charge	$I_{TM}=1000A, t_p=1000\mu s,$ $di/dt=-20A/\mu s, V_R=100V$		125		77	100	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	8		14	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 24kN					0.020	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.005	
$F_m$	Mounting force				19		26	kN
$T_{stg}$	Stored temperature				-40		140	°C
$W_t$	Weight					470		g
Outline	KT55cT							

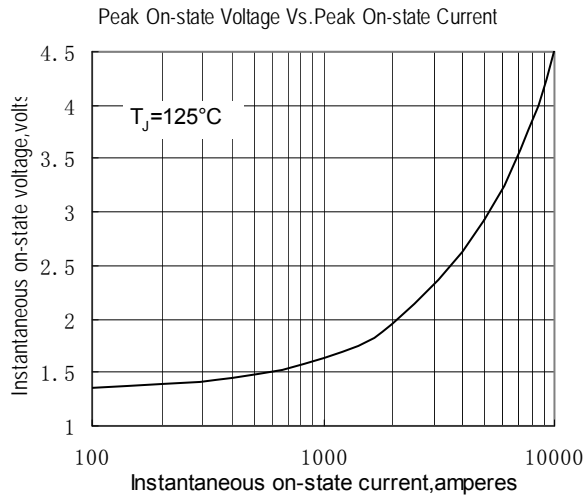


Fig.1

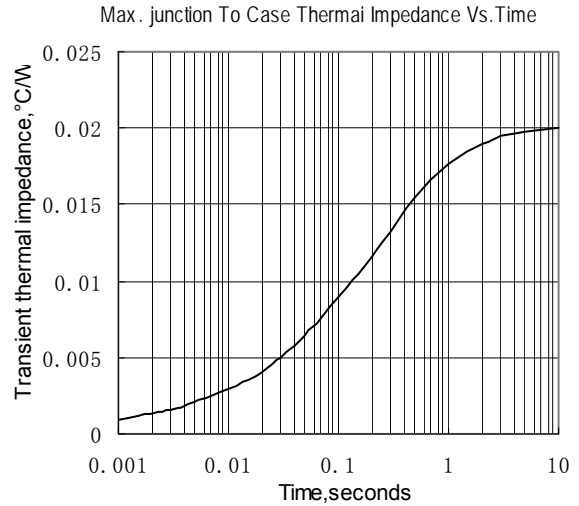


Fig.2

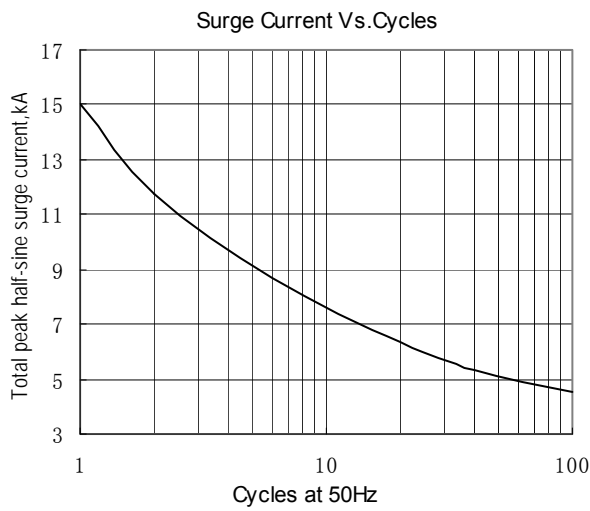


Fig.3

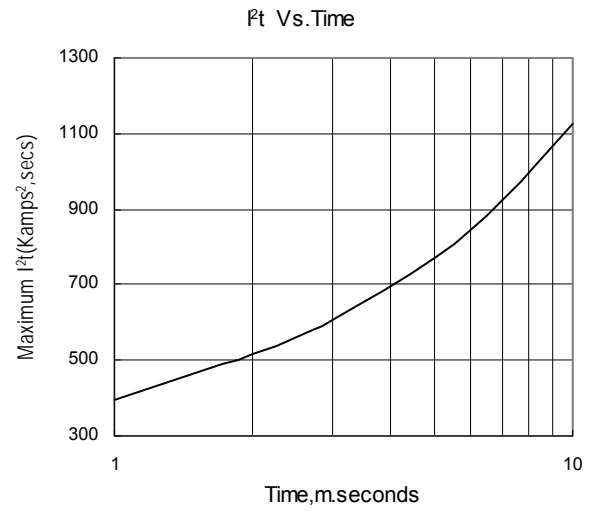


Fig.4

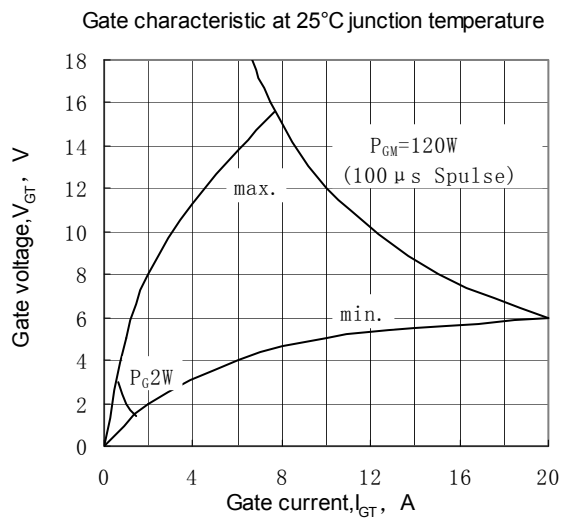


Fig.5

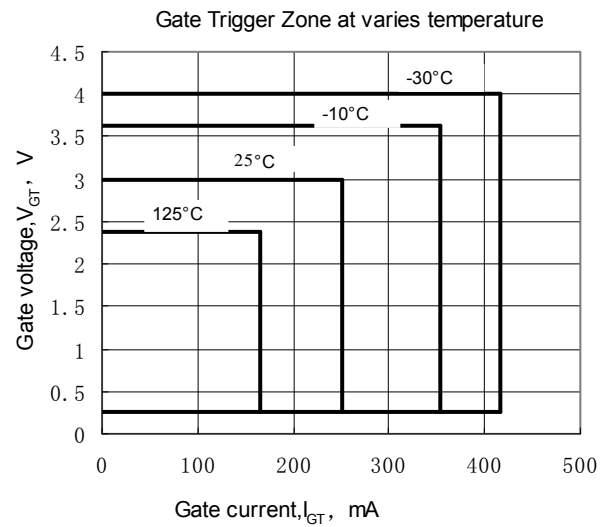
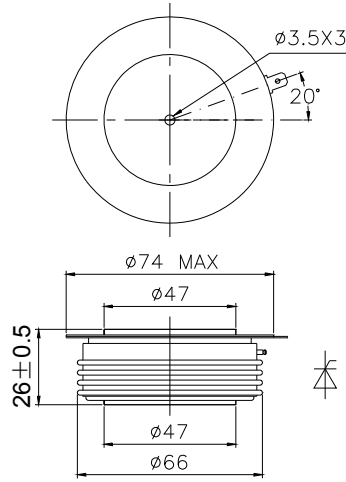


Fig.6



**Outline:**

图8-KT55cT



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