



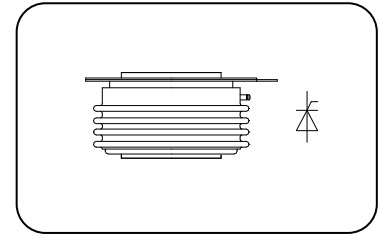
Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$ 1000A
 V_{DRM}/V_{RRM} 2400~3000V
 t_q 16~35 μ s
 I_{TSM} 14 kA
 I^2t 980 10³A²S



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _j (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, T _c =55°C	125		1000	1100	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM} & V_{RRM} , tp=10ms V_{DSM} & $V_{RSM} = V_{DRM}$ & $V_{RRM} + 100V$	125	2400		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	$V_D = V_{DRM}$ $V_R = V_{RRM}$	125			80	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			14	kA
I^2t	I ² T for fusing coordination	$V_R = 0.6V_{RRM}$				980	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.64	V
r_T	On-state slop resistance					0.42	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 ≤ 0.5μs I _{GM} = 1.5A f=50Hz	125			600	A/μs
Q _{rr}	Recovery charge	$I_{TM} = 1000A$, tp=1000μs, di/dt=-60A/μs, V _R =100V	125		750		μC
t _q	Circuit commutated turn-off time	$I_{TM} = 1000A$, tp=1000μs, V _R = 100V dv/dt=30V/μs ,di/dt=-20A/μs	125	30		60	μs
I_{GT}	Gate trigger current	$V_A = 12V$, I _A =1A	25	40		200	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 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 _i	Weight				470		g
Outline	KT55cT						

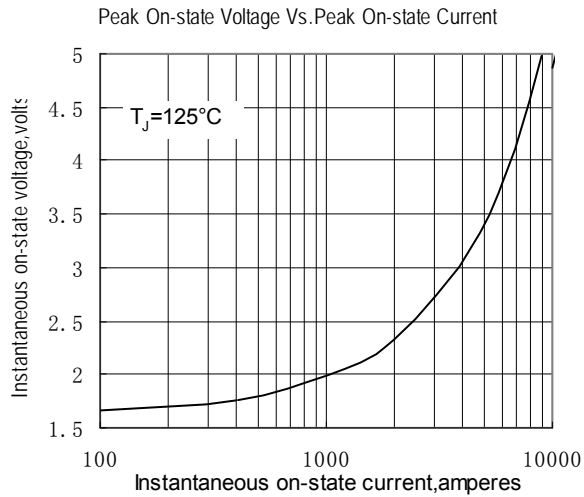


Fig.1

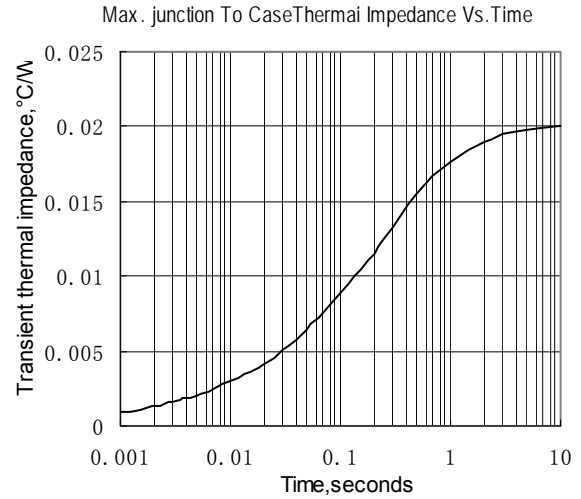


Fig.2

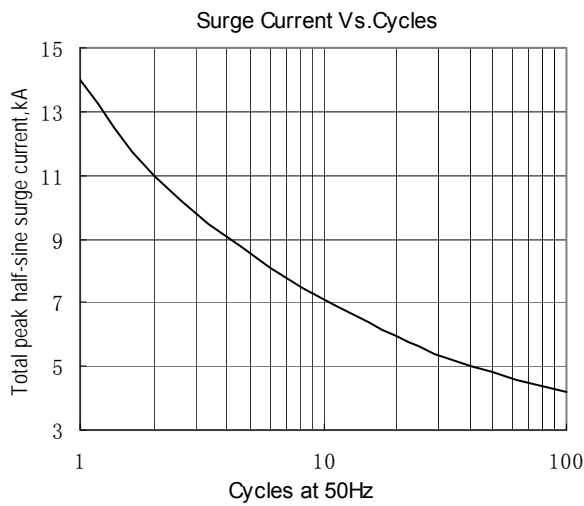


Fig.3

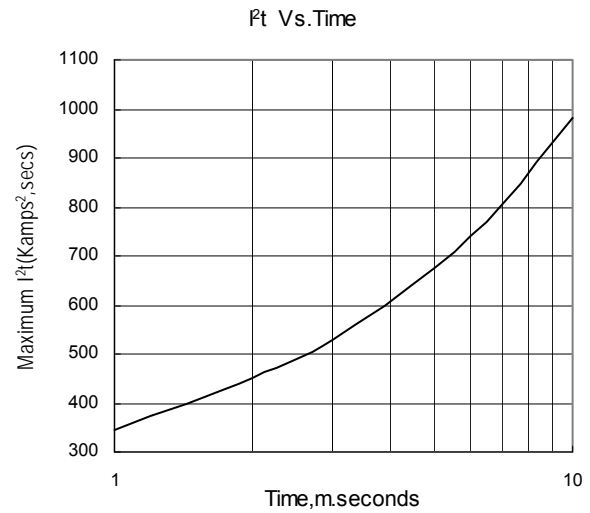


Fig.4

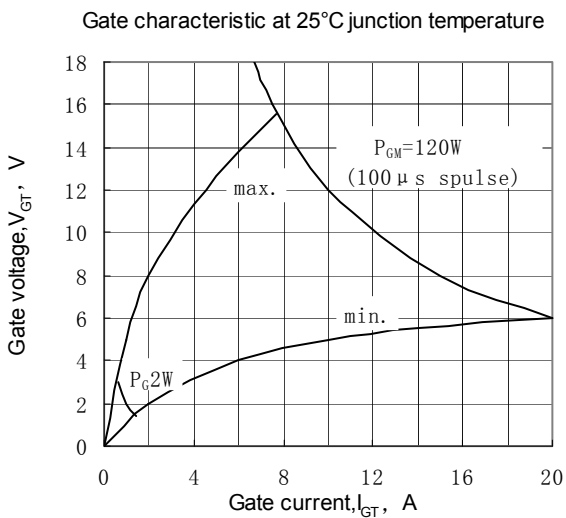


Fig.5

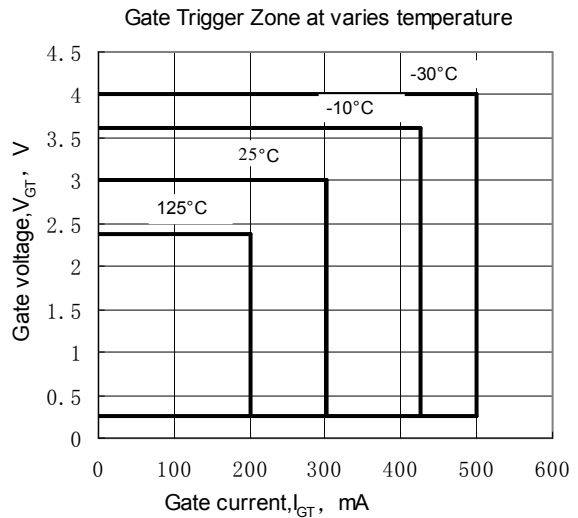
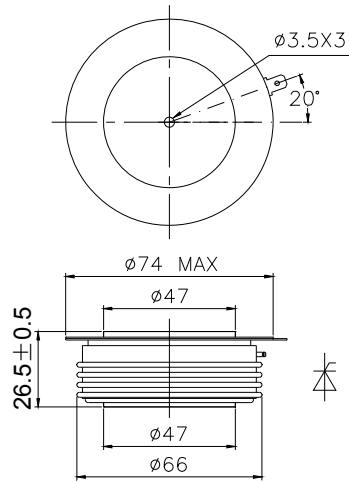


Fig.6



Outline:

图8-KT55cT



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