

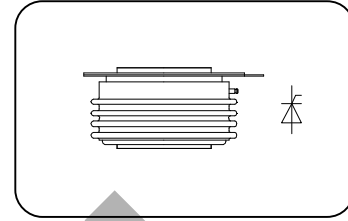
Features:

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

Typical Applications

- n Inductive heating
- n Electronic welders
- n Self-commutated inverters

$I_T(AV)$ **1164A**
 V_{DRM}/V_{RRM} **800~1800V**
 t_q **24~50μs**
 I_{TSM} **14KA**
 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 _{hs} =55°C	125			1164	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	800		1800	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	$V_R=0.6V_{RRM}$	125			980	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.56	V
r_T	On-state slop resistance		125			0.33	mW
V_{TM}	Peak on-state voltage	$I_{TM}=2000A$, F=24KN	125			2.22	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			500	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 1600A, Gate pulse t _g ≤0.5 μ s I _{GM} =1.5A	125			1200	A/μs
I_{rm}	Reverse recovery current	$I_{TM}=1000A$, tp=1000μs,	125			100	A
t_{rr}	Reverse recovery time	di/dt=-20A/μs,				5.8	μs
Q_{rr}	Recovery charge	$V_R=50V$				290	320
t_q	Circuit commutated turn-off time	$I_{TM}=1000A$, tp=1000μs, $V_R=50V$ dv/dt=30V/μs, di/dt=-20A/μs	125	24		50	μs
I_{GT}	Gate trigger current	$V_A=12V$, I _A =1A	25	40		300	mA
V_{GT}	Gate trigger voltage			0.9		3.0	V
I_H	Holding current			20		500	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	125	0.3			V
$R_{th(j-h)}$	Thermal resistance Junction to heat sink	At 180° sine' double side cooled Clamping force 24KN				0.024	°C/W
F_m	Mounting force			19		26	KN
T_{stg}	Stored temperature			-40		130	°C
W_t	Weight					470	g
Outline	KT50cT						

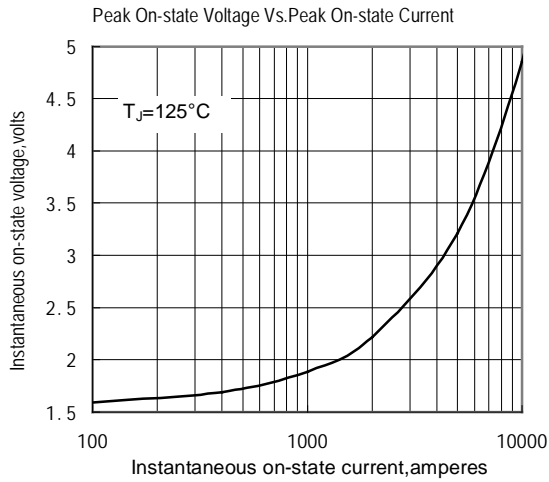


Fig.1

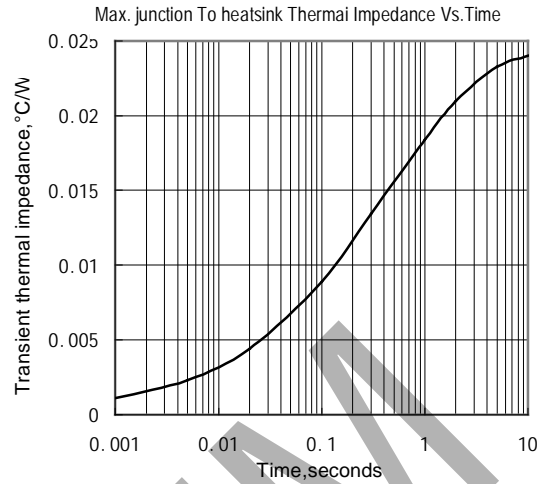


Fig.2

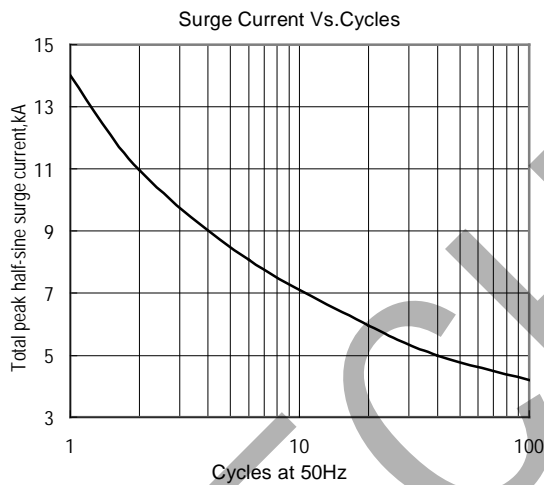


Fig.3

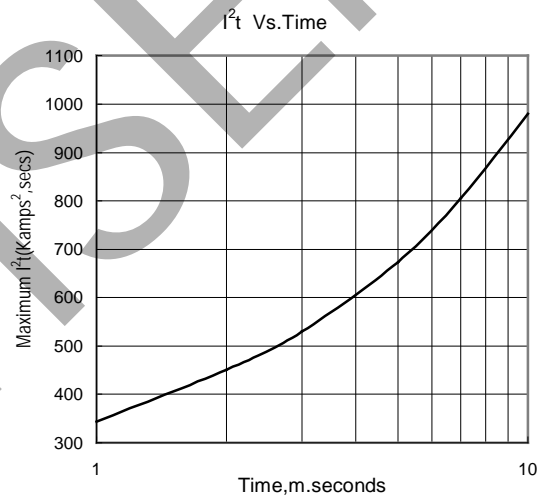


Fig.4

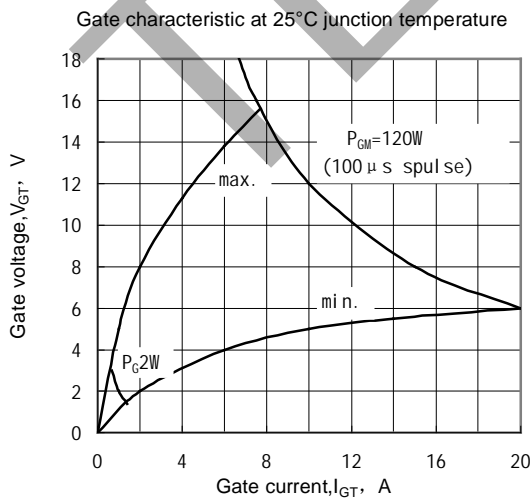


Fig.5

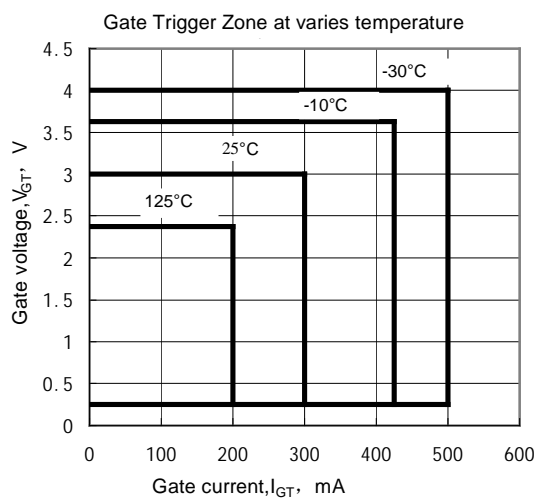
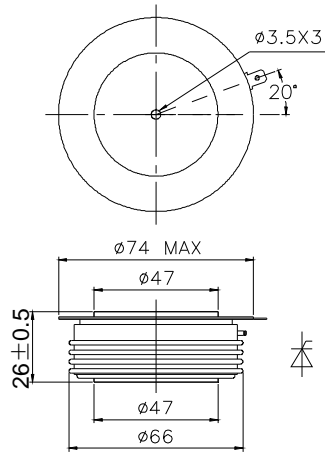


Fig.6

Outline:



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