

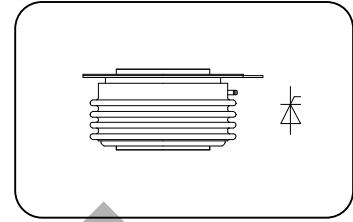
Features:

- 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

$I_{T(AV)}$ **1423A**
 V_{DRM}/V_{RRM} **800~1800V**
 t_q **24~50μs**
 I_{TSM} **18KA**
 I^2t **1620 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			1423	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			120	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			18	KA
I^2t	I ² T for fusing coordination	$V_R = 0.6V_{RRM}$	125			1620	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.40	V
r_T	On-state slop resistance		125			0.28	mW
V_{TM}	Peak on-state voltage	$I_{TM} = 3000A$, F=28KN	125			2.32	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 2500A, Gate pulse t _g ≤ 0.5 μ s I _{GM} = 1.5A	125			1200	A/μs
I_{rm}	Reverse recovery current	$I_{TM} = 1500A$, tp=1000μs, di/dt=-20A/μs, $V_R = 50V$	125			107	A
t _{rr}	Reverse recovery time		125			6.5	μs
Q _{rr}	Recovery charge		125			349	μC
t _q	Circuit commutated turn-off time	$I_{TM} = 1500A$, tp=1000μs, $V_R = 50V$ dv/dt=30V/μs, di/dt=-20A/μs	125	24		50	μs
I_{GT}	Gate trigger current		25	40		300	mA
V_{GT}	Gate trigger voltage	$V_A = 12V$, I _A =1A	25	0.9		3.5	V
I_H	Holding current		25	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 28KN				0.020	°C/W
F _m	Mounting force			21		30	KN
T _{stg}	Stored temperature			-40		140	°C
W _t	Weight					650	g
Outline	KT54cT60						

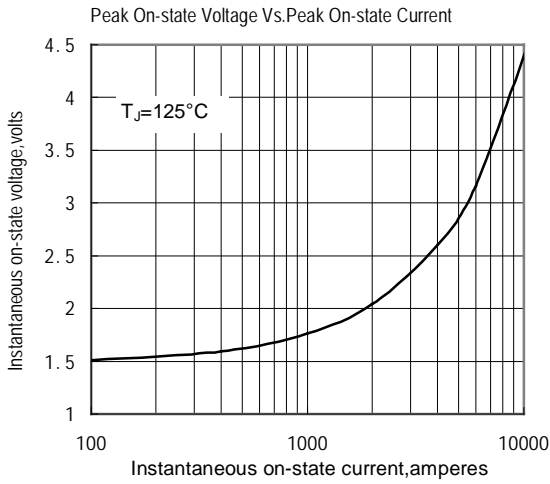


Fig.1

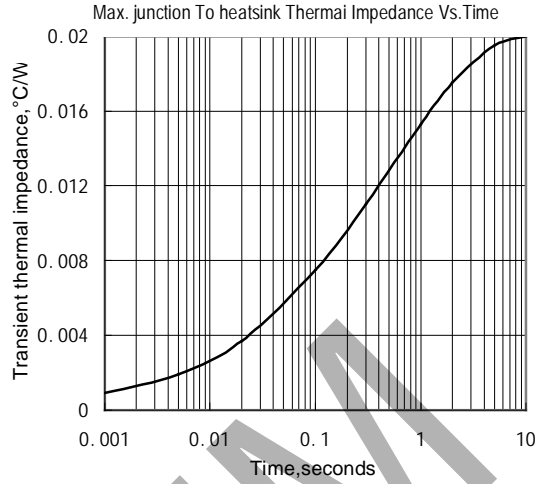


Fig.2

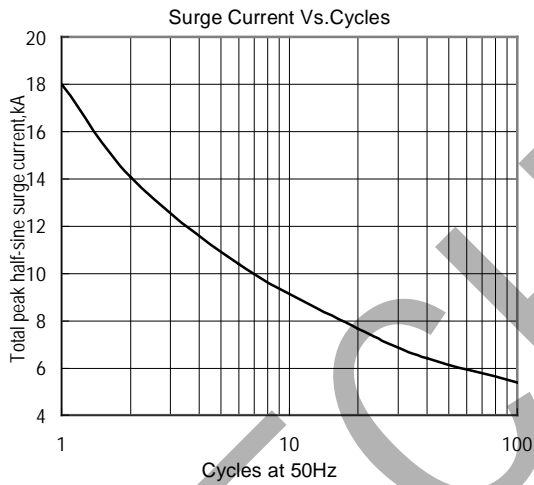


Fig.3

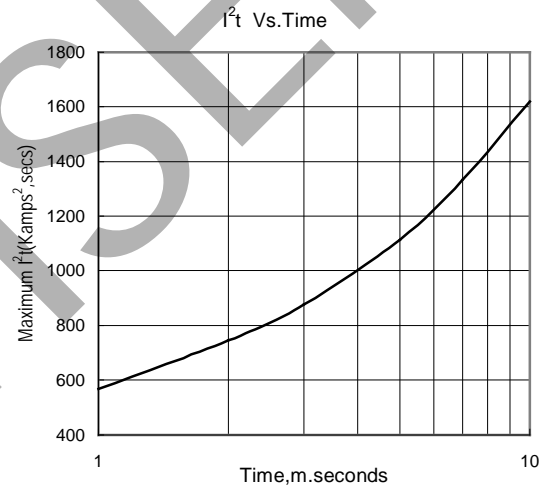


Fig.4

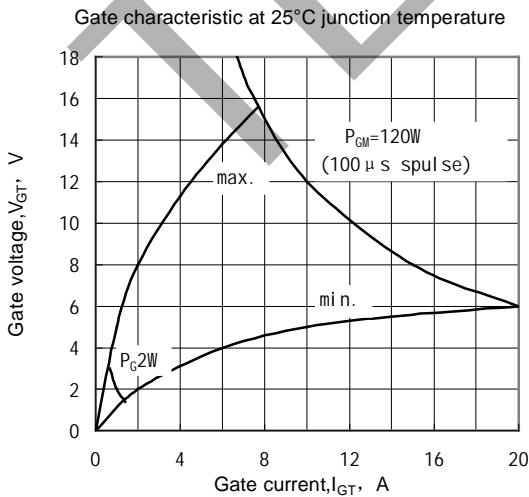


Fig.5

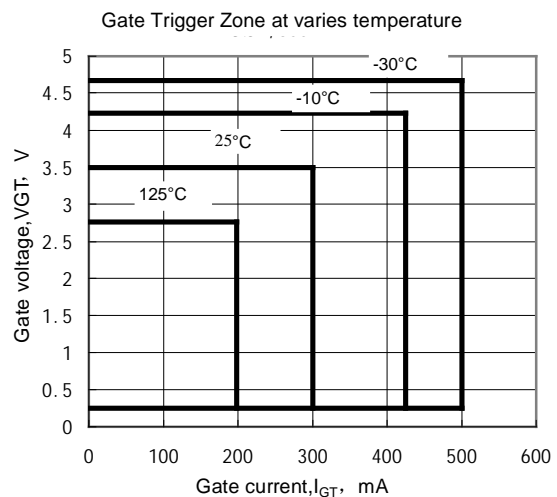
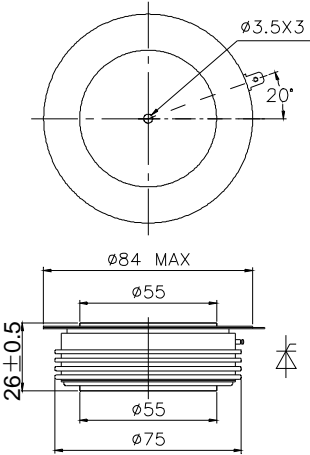


Fig.6

Outline:



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