

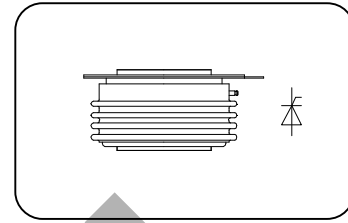
### Features:

- 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

$I_{T(AV)}$       **3208A**  
 $V_{DRM}/V_{RRM}$     **1900~2500V**  
 $t_q$                 **60~110μs**  
 $I_{TSM}$              **44KA**  
 $I^2t$                 **9680 10<sup>3</sup>A<sup>2</sup>S**



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>HS</sub> =55°C	125			3208	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	1900		2500	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	$V_D=V_{DRM}$ $V_R=V_{RRM}$	125			250	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave	125			44	KA
$I^2t$	I <sup>2</sup> T for fusing coordination	$V_R=0.6V_{RRM}$				9680	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage		125			1.32	V
$r_T$	On-state slop resistance					0.14	mW
$V_{TM}$	Peak on-state voltage	$I_{TM}=5000A$ , F=78KN	125			2.02	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	$V_{DM}=67\%V_{DRM}$ , to4000A Gate pulse t <sub>r</sub> ≤ 0.5 μ s I <sub>GM</sub> =1.5A	125			1000	A/μs
$I_{rm}$	Reverse recovery current					195	A
$t_{rr}$	Reverse recovery time	$I_{TM}=2000A$ , tp=1000μs, di/dt=-20A/μs, $V_R=50V$	125			10.4	μs
$Q_{rr}$	Recovery charge					1014	μC
$t_q$	Circuit commutated turn-off time	$I_{TM}=2000A$ , tp=1000μs, $V_R=50V$ dv/dt=30V/μs, di/dt=-20A/μs	125	60		110	μs
$I_{GT}$	Gate trigger current			40		450	mA
$V_{GT}$	Gate trigger voltage	$V_A=12V$ , $I_A=1A$	25	0.9		4.5	V
$I_H$	Holding current			20		1000	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 78 KN				0.009	°C/W
$F_m$	Mounting force			70		85	KN
$T_{stg}$	Stored temperature			-40		140	°C
$W_t$	Weight					1900	g
Outline	KT84dT						

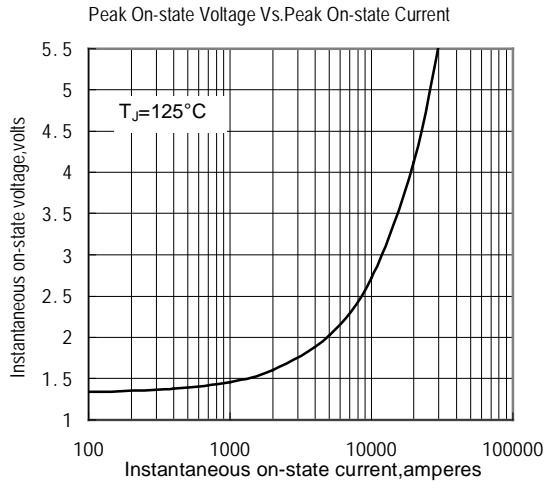


Fig.1

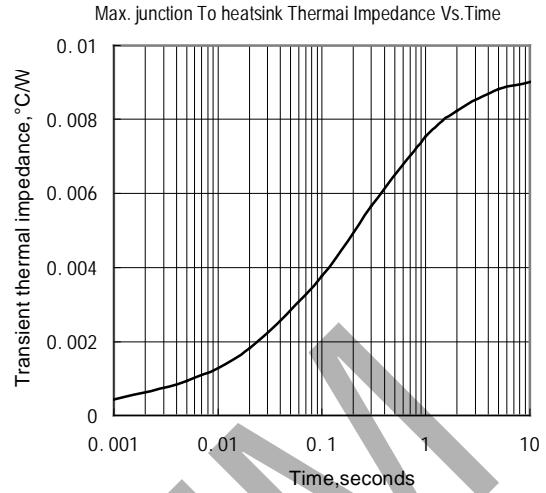


Fig.2

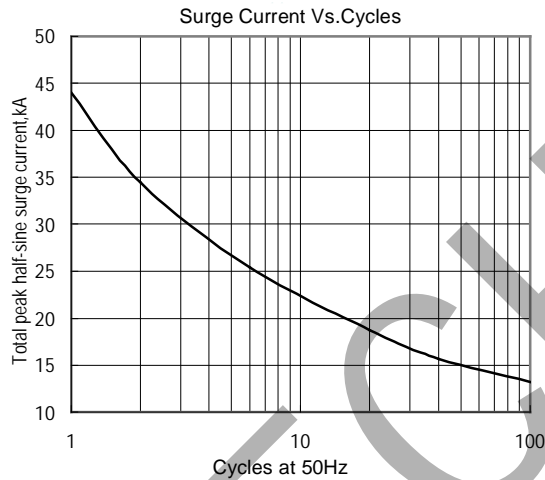


Fig.3

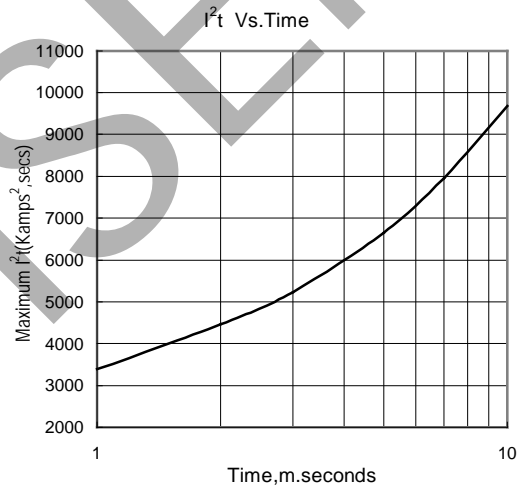


Fig.4

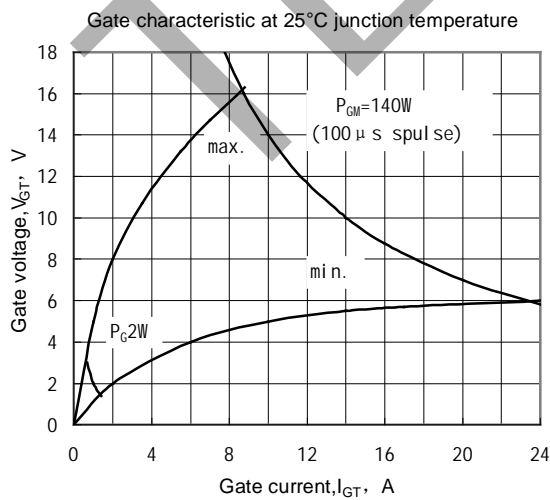


Fig.5

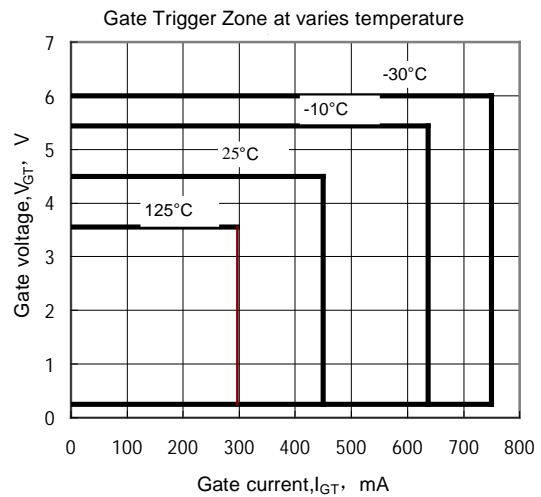
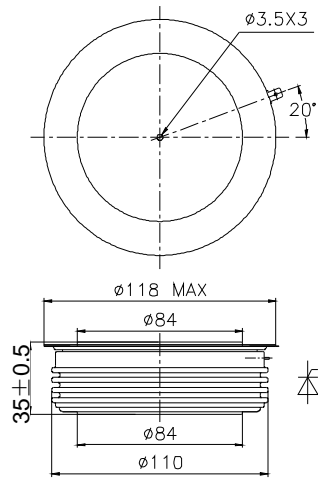


Fig.6

Outline:



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