

G89KKG

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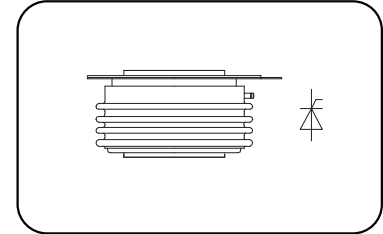
Features:

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$ **3000A**
 V_{DRM}/V_{RRM} **1900~2500V**
 t_q **40~80μs**
 I_{TSM} **31KA**



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, $T_{hs}=55^{\circ}C$	115			3000	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$, $t_p=10ms$ $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100V$	115	1900		2500	V
I_{DRM} I_{RRM}	Repetitive peak current	$V_D = V_{DRM}$ $V_R = V_{RRM}$	115			250	mA
I_{TSM}	Surge on-state current	10ms half sine wave	115			31	KA
I^2t	I^2T for fusing coordination	$V_R = 0.6V_{RRM}$				4805	$A^2s \cdot 10^3$
V_{TO}	Threshold voltage		115			1.10	V
r_T	On-state slop resistance					0.14	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=5000A$, $F=35KN$	25			3.15	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	115			500	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM} = 67\%V_{DRM}$ to 2000A, Gate pulse $t_r \leq 0.5 \mu s$ $I_{GM}=1.5A$ Repetitive	115			600	A/μs
I_{rm}	Reverse recovery current	$I_{TM}=1000A$, $t_p=1000\mu s$,	115		195		A
t_{rr}	Reverse recovery time	di/dt=-20A/μs,			10.4		μs
Q_{rr}	Recovery charge	$V_R=50V$			1014	1100	μC
t_q	Circuit commutated turn-off time	$I_{TM}=1000A$, $t_p=1000\mu s$, $V_R = 50V$ dv/dt=30V/μs ,di/dt=-20A/μs	115	40		80	μs
I_{GT}	Gate trigger current	$V_A=12V$, $I_A=1A$	25	40		450	mA
V_{GT}	Gate trigger voltage			0.9		4.5	V
I_H	Holding current			20		1000	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	115	0.3			V
$R_{th(j-h)}$	Thermal resistance Junction to heatsink	At 180° sine double side cooled Clamping force 80 KN				0.009	$^{\circ}C / W$
F_m	Mounting force			70		85	KN
T_{stg}	Stored temperature			-40		130	$^{\circ}C$
W_t	Weight				1900		g
Outline	KT84dT						

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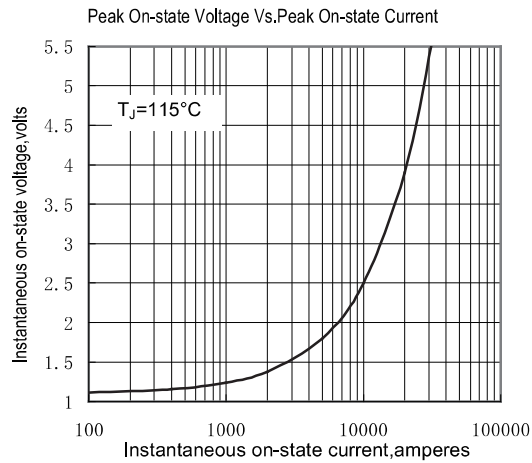


Fig.1

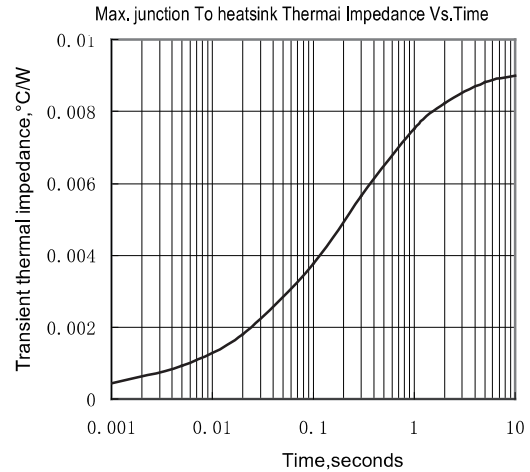


Fig.2

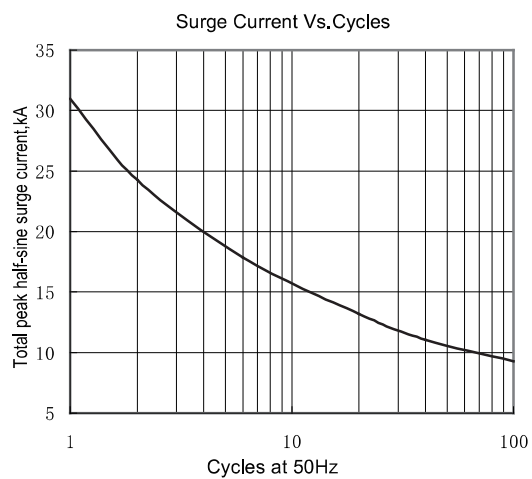


Fig.3

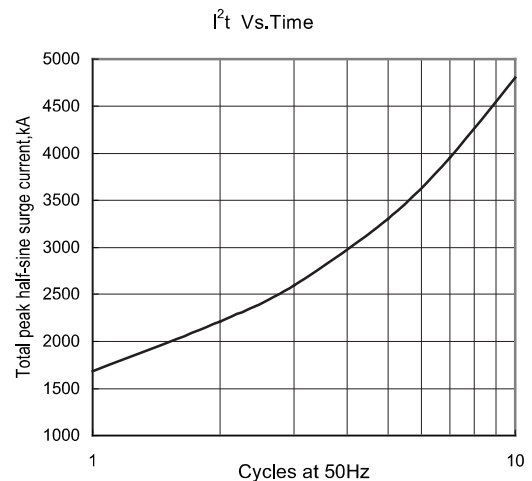


Fig.4

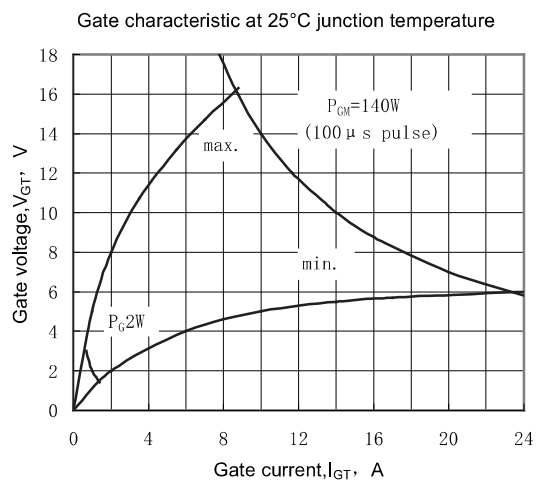


Fig.5

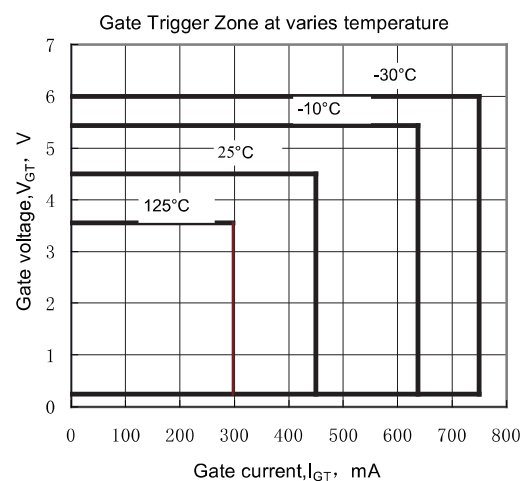


Fig.6

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