

Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	1920A
V_{DRM}/V_{RRM}	1900~2500V
t_q	40~120μs
I_{TSM}	21 kA
I^2t	2205 10 ³ A ² S



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, $T_C=55^{\circ}C$	125			1920	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	1900		2500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			140	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			21	kA
I^2t	I^2t for fusing coordination					2205	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.48	V
r_T	On-state slope resistance					0.28	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=3600A$, $F=32kN$	25			3.15	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	$V_{DM}=67\%V_{DRM}$ to 2500A Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$	125			1200	A/μs
Q_{rr}	Recovery charge	$I_{TM}=2000A$, $tp=2000\mu s$, $di/dt=-60A/\mu s$, $V_R=50V$	125		1360		μC
t_q	Circuit commutated turn-off time	$I_{TM}=2000A$, $tp=2000\mu s$, $V_R=50V$ $dv/dt=30V/\mu s$, $di/dt=-20A/\mu s$	125	40		120	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		800	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	double side cooled Clamping force 32kN				0.013	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.0035	
F_m	Mounting force			27		34	kN
T_{stg}	Stored temperature			-40		140	$^{\circ}C$
W_i	Weight				820		g
Outline	KT60cT65						

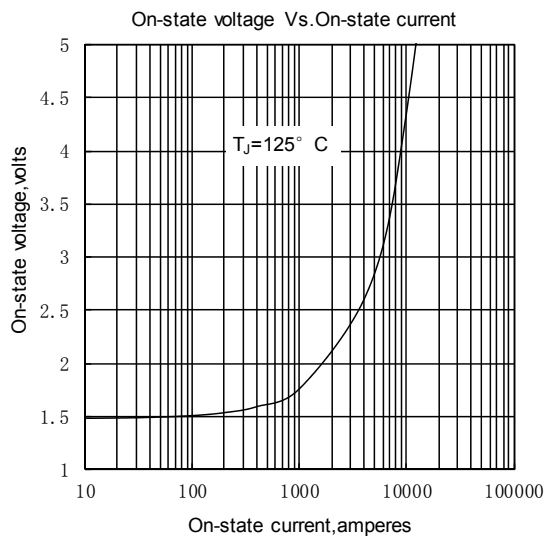


Fig. 1

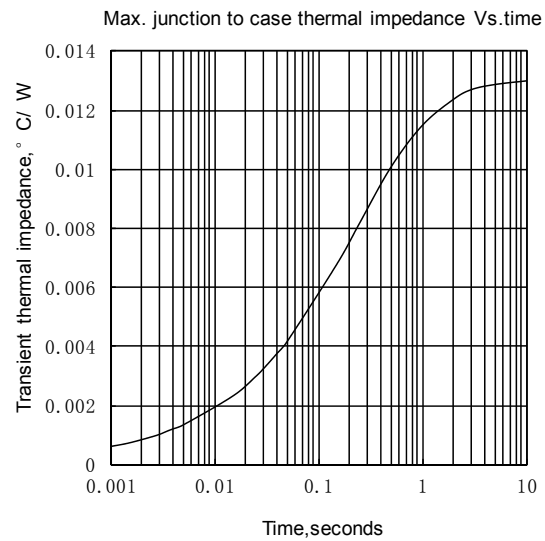


Fig. 2

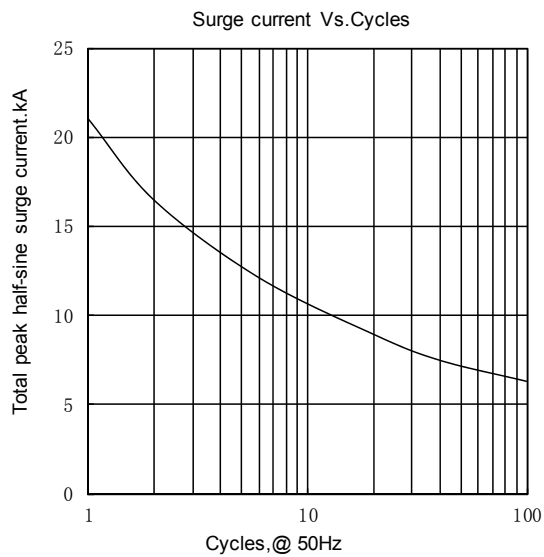


Fig. 3

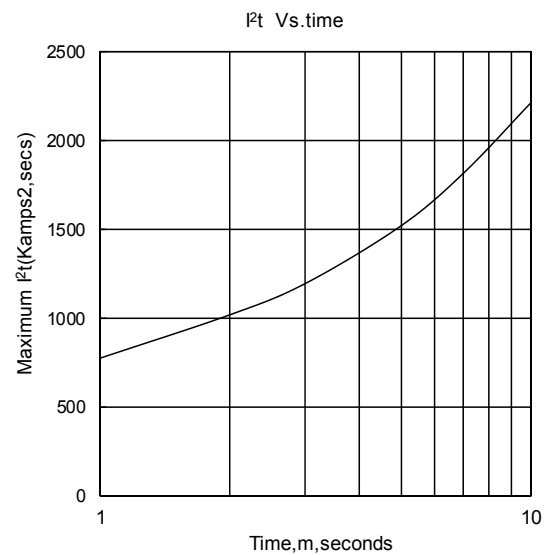


Fig. 4

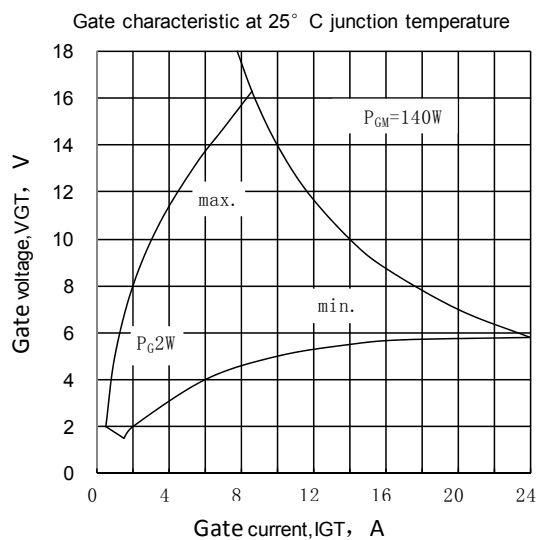


Fig. 5

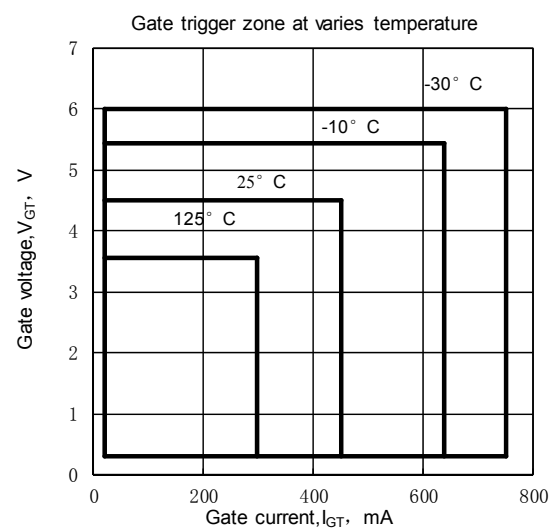


Fig. 6

Outline:

