

Features:

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses
- Short turn-off time
- Hermetic metal cases with ceramic insulators

$I_{T(AV)}$ **1050A**
 V_{DRM}/V_{RRM} **1100~1400V**
 t_q **15~28μs**
 I_{TSM} **12kA**



Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters
- AC motor speed control
- General power switching applications

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 _C =55°C	125			1050	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	1100		1400	V
I_{DRM} I_{RRM}	Repetitive peak off-state current Repetitive peak reverse current	at V_{DRM} at V_{RRM}	125			60	mA
$I_{T/f}$	High frequency on-state current	F=6KHz, T _C =55°C				600	A
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125			12	kA
I^2t	I^2t for fusing coordination					720	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.61	V
r_T	On-state slope resistance					0.45	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1800A, F=21kN$	125			2.42	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			200	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 1600A, Gate pulse t _r ≤ 0.5μs I _{GM} =1.5A	125			1500	A/μs
Q _{rr}	Recovery charge	$I_{TM}=1000A, tp=2000μs,$ $di/dt=-60A/μs, V_R=50V$	125		83		μC
t _q	Circuit commutated turn-off time	$I_{TM}=1000A, tp=2000μs, V_R=50V$ $dv/dt=30V/μs, di/dt=-60A/μs$	125	15		28	μs
I_{GT}	Gate trigger current			30		250	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$	25	0.8		3.0	V
I_H	Holding current			20		400	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	At 180° sine double side cooled Clamping force 21kN				0.024	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.006	
F_m	Mounting force			18		25	kN
T _{stg}	Stored temperature			-40		140	°C
W _t	Weight					380	g
Outline							

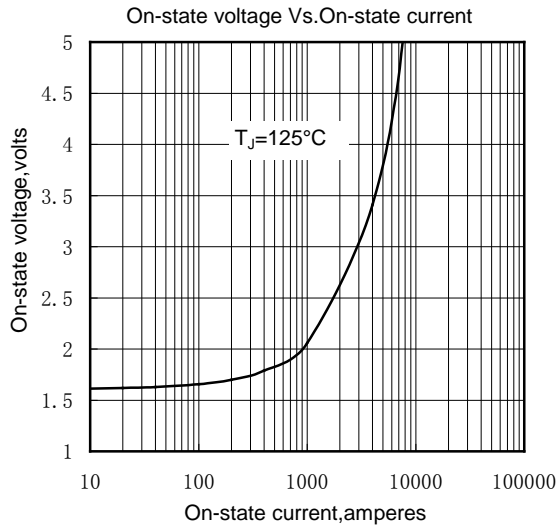


Fig. 1

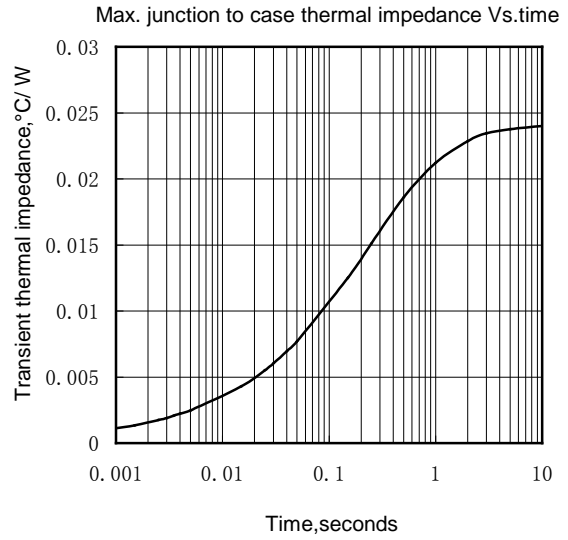


Fig. 2

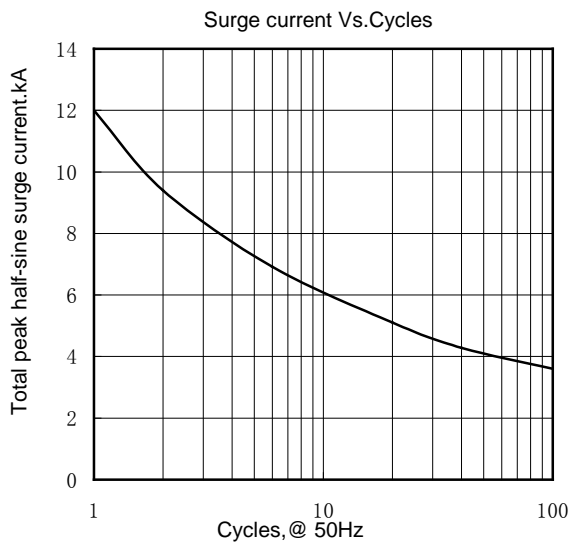


Fig. 3

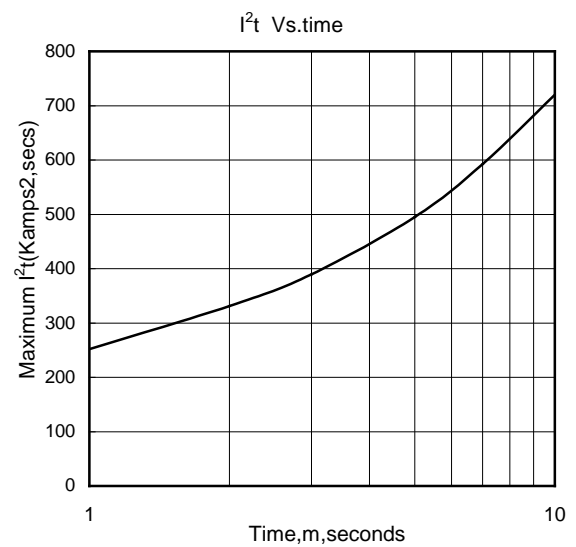


Fig. 4

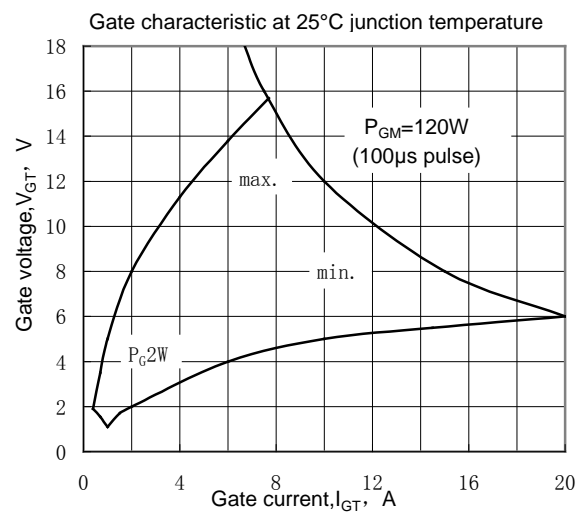


Fig. 5

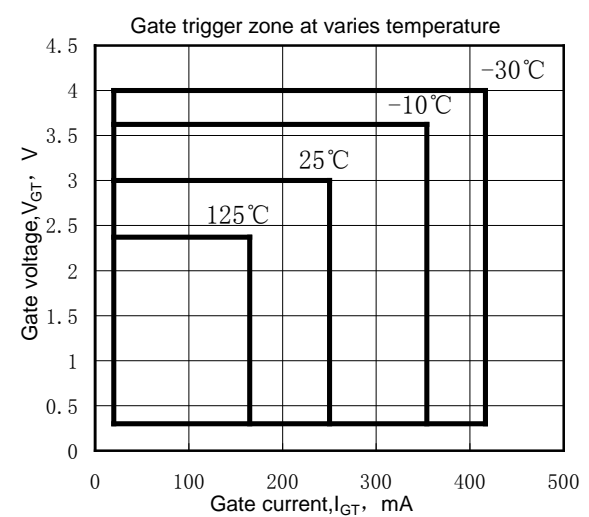


Fig. 6

Outline:

