

Features

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

$I_{T(AV)}$ **1520A**
 V_{DRM}/V_{RRM} **1100~1400V**
 t_q **15~28μs**
 I_{TSM} **18kA**



Typical Applications

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS		T _f (°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		1520	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			100	mA
$I_{T(f)}$	High frequency on-state current	F=6KHz, T _c =55°C					1000	A
I_{TSM}	Surge on-state current	10ms half sine wave		125			18	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$						1620
V_{TO}	Threshold voltage			125			1.63	V
r_T	On-state slope resistance							0.25
V_{TM}	Peak on-state voltage	$I_{TM}=3000A, F=26kN$		25			2.38	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 2500A 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		105		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			25	30		300	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$			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					0.018	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink	Clamping force 26kN					0.004	
F_m	Mounting force				21		30	kN
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					590		g
Outline								

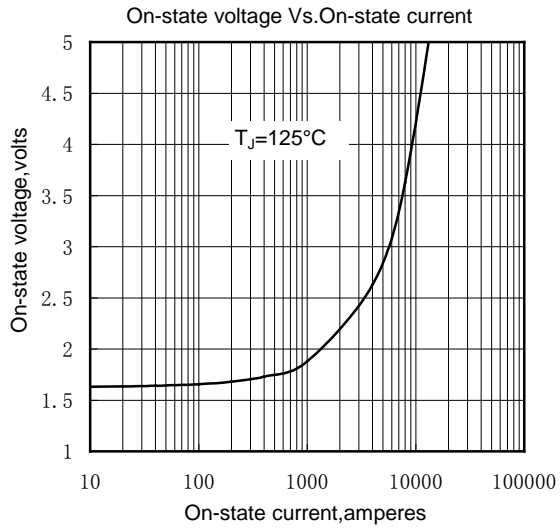


Fig. 1

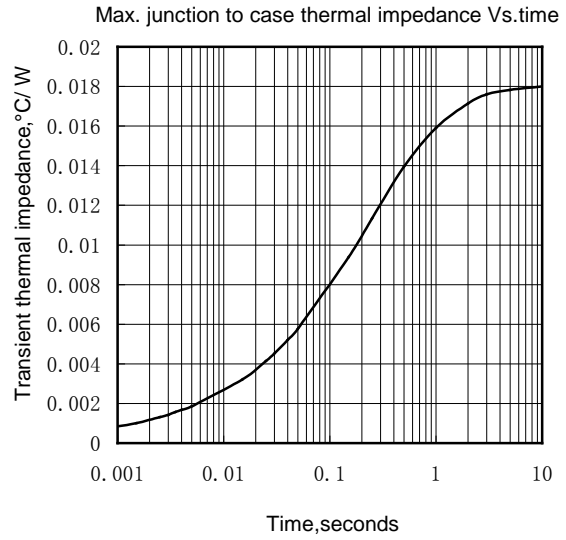


Fig. 2

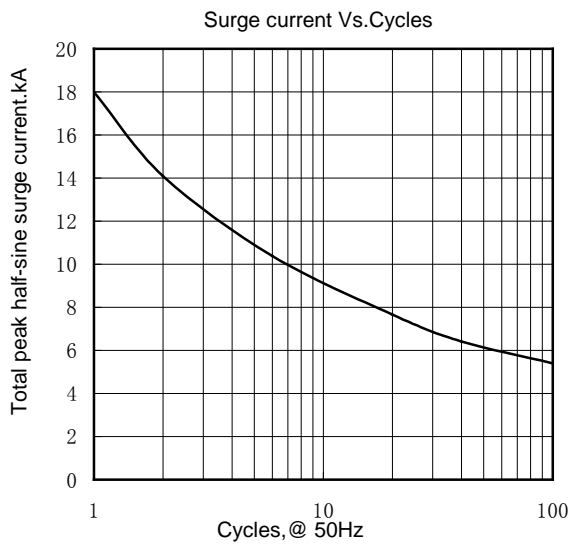


Fig. 3

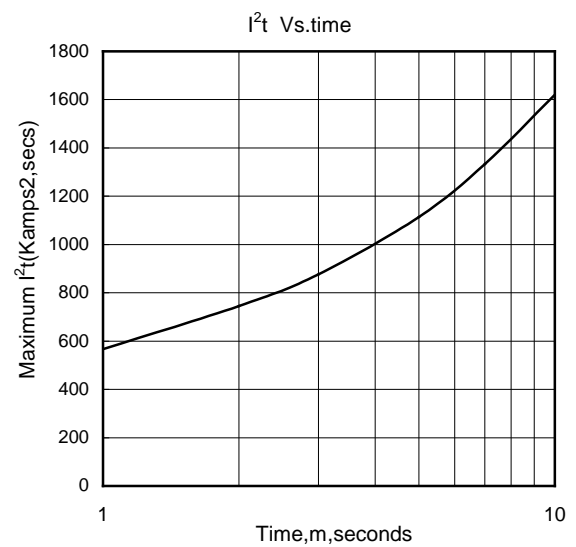


Fig. 4

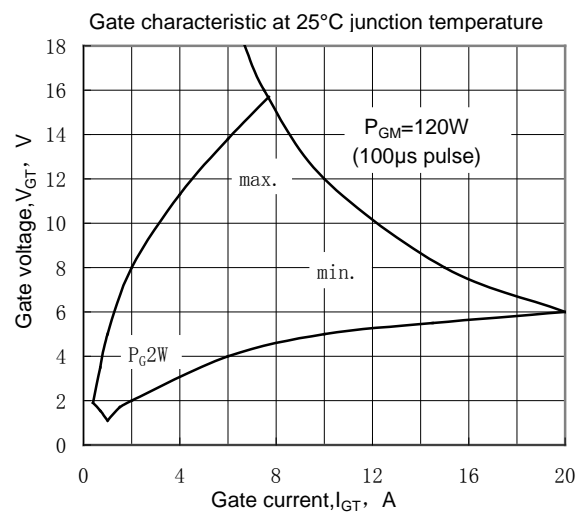


Fig. 5

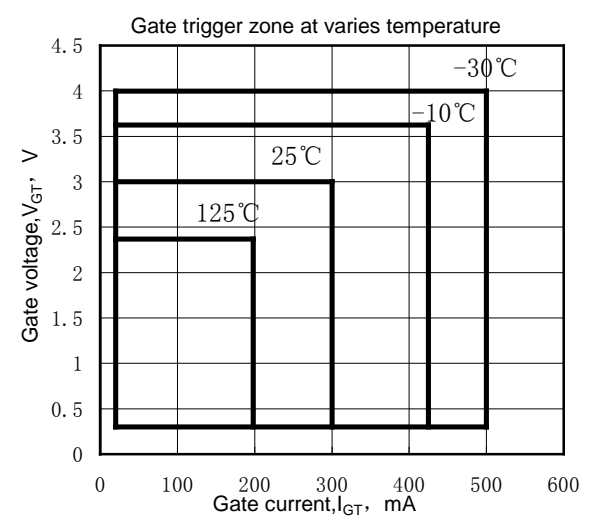


Fig. 6

Outline:

