

Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	2160A
V_{DRM}/V_{RRM}	1900~2500V
t_q	40~80μs
I_{TSM}	23 kA
I^2t	2645 10³A²S



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			2160	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			160	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			23	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$					2645	A ² s*10 ³
V_{TO}	Threshold voltage			125			1.48	V
r_T	On-state slope resistance						0.23	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=4000A, F=35kN$		125			2.40	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	$V_{DM}=67\%V_{DRM}$ to 3000A Gate pulse t _r ≤ 0.5μs I _{GM} =1.5A		125			1200	A/μs
Q _{rr}	Recovery charge	$I_{TM}=2000A, tp=2000μs,$ $di/dt=-60A/μs, V_R=50V$		125		1400		μC
t _q	Circuit commutated turn-off time	$I_{TM}=2000A, tp=2000μs, V_R=50V$ $dv/dt=30V/μs, di/dt=-60A/μs$		125	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	$V_{DM}=67\%V_{DRM}$		125	0.3			V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 35kN					0.012	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.003	
F_m	Mounting force				30		40	kN
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					880		g
Outline								

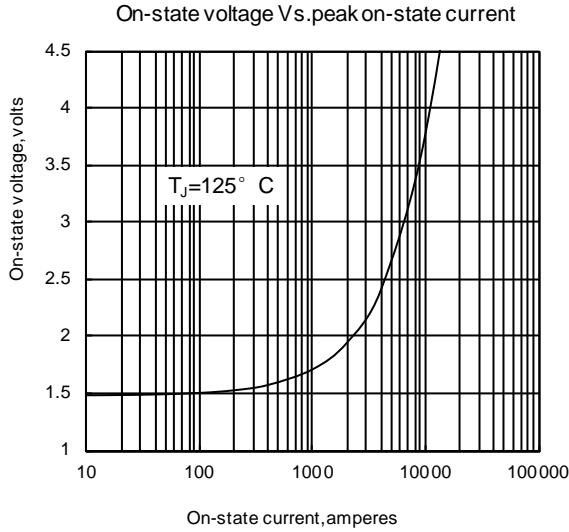


Fig1

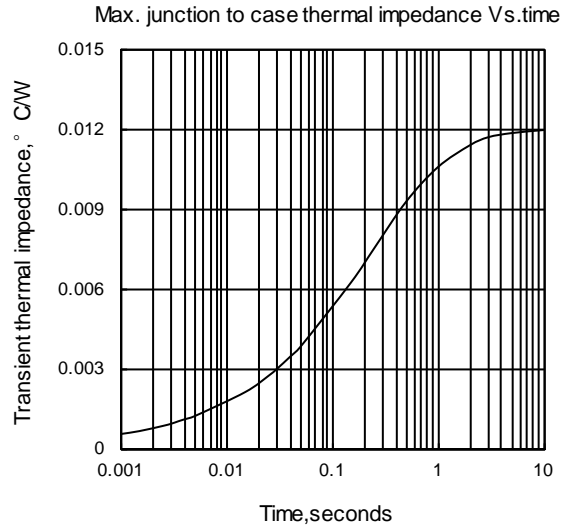


Fig2

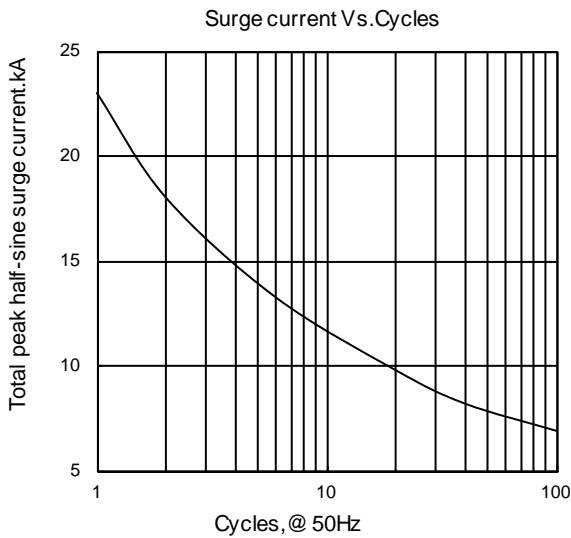


Fig3

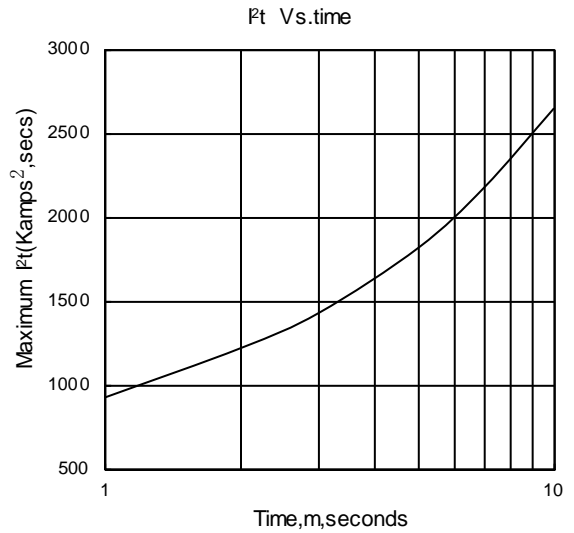


Fig4

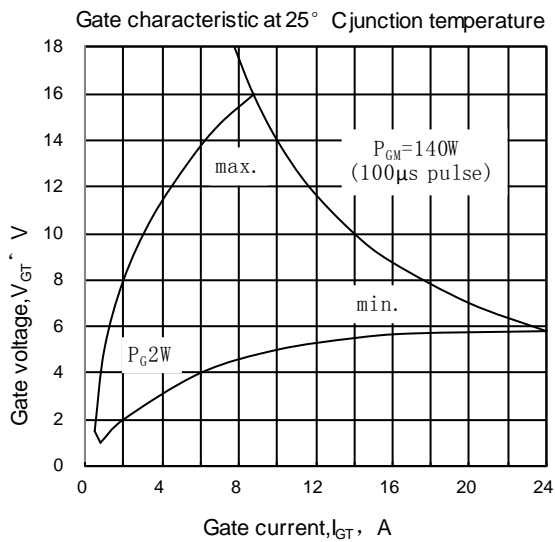


Fig5

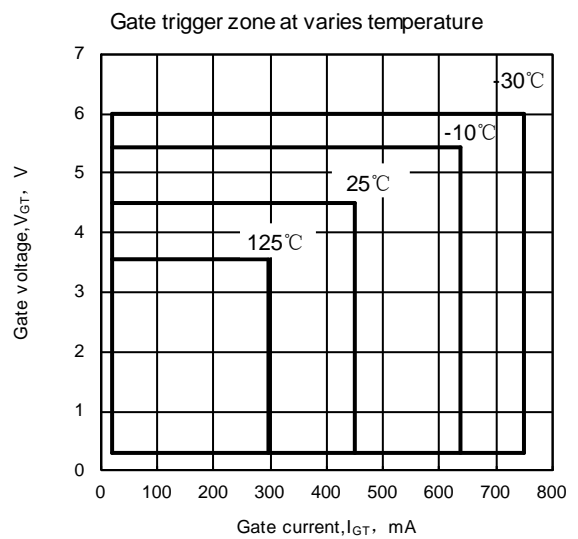


Fig6

Outline:

