

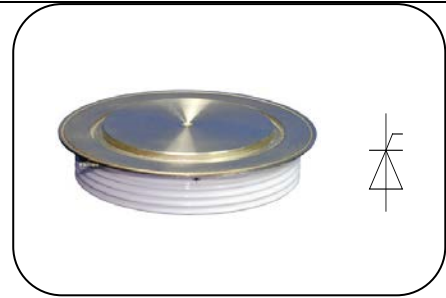
Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	3050A
V_{DRM}/V_{RRM}	3100~4000V
t_q	60~150μs
I_{TSM}	35 kA
I^2t	6125 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			3050	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	3100		4000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			250	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$		125			35	kA
I^2t	I^2t for fusing coordination						6125	A ² s*10 ³
V_{TO}	Threshold voltage			125			1.48	V
r_T	On-state slope resistance						0.24	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=3000A, F=70kN$		125			2.20	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 4000A 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		3500		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	60		150	μs
I_{GT}	Gate trigger current				50		450	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$		25	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 70kN					0.007	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.002	
F_m	Mounting force				63		84	kN
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					1390		g
Outline								

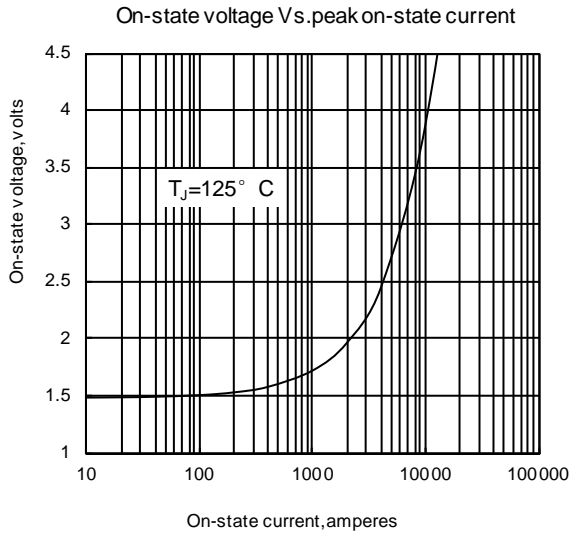


Fig1

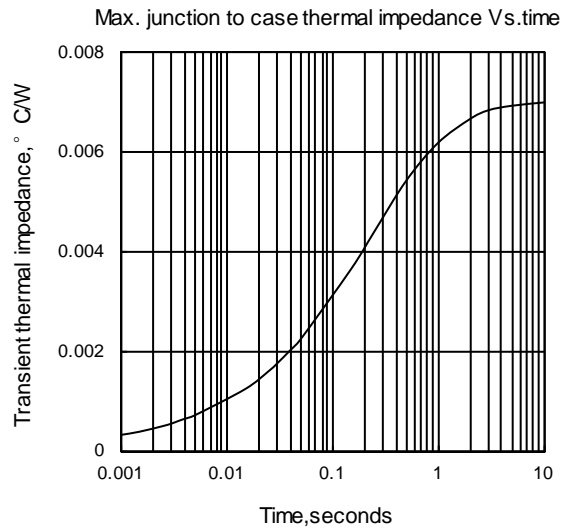


Fig2

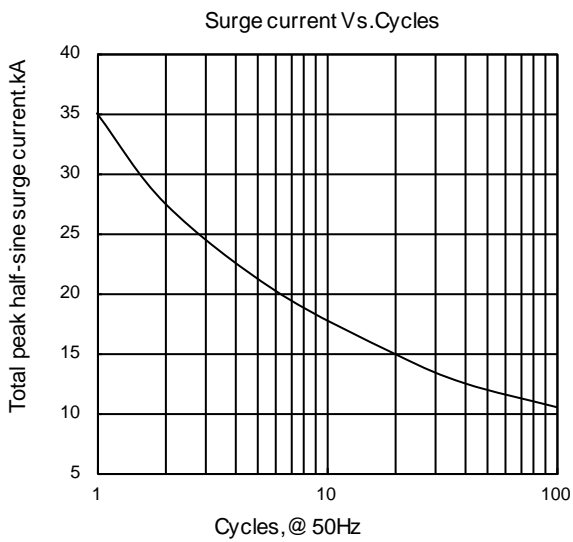


Fig3

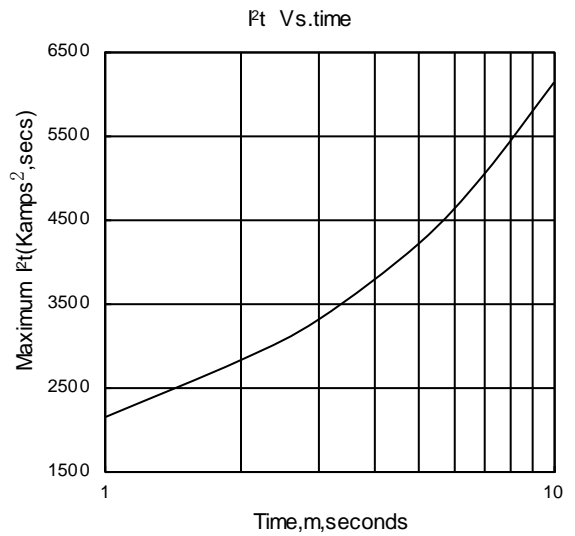


Fig4

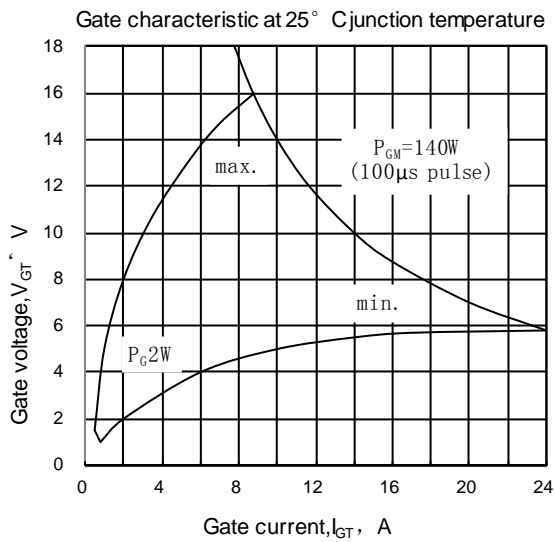


Fig5

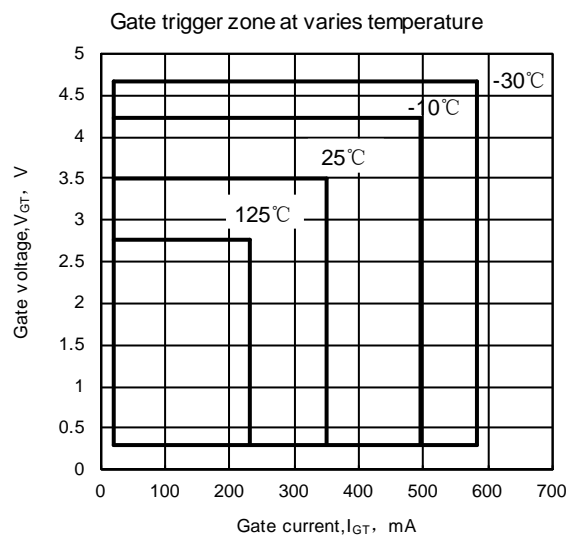


Fig6

Outline:

