

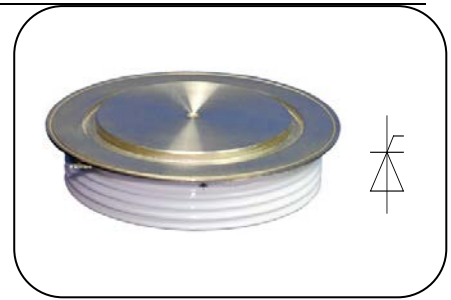
Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	4450A
V_{DRM}/V_{RRM}	1900~3000V
t_q	40~120μs
I_{TSM}	62 kA
I^2t	19220 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			4450	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	1900		3000	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			62	kA
I^2t	I^2t for fusing coordination					19220	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.50	V
r_T	On-state slope resistance					0.15	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=5000A, F=90kN$	125			2.25	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	$V_{DM}=67\%V_{DRM}$ to4000A 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		2400		μC
tq	Circuit commutated turn-off time	$I_{TM}=2000A, tp=2000\mu s, V_R=50V$ $dv/dt=30V/\mu s, di/dt=-60A/\mu s$	125	40		120	μs
I_{GT}	Gate trigger current			40		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 90kN				0.0050	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.0015	
F_m	Mounting force			81		108	kN
T _{stg}	Stored temperature			-40		140	°C
W _t	Weight				2000		g
Outline							

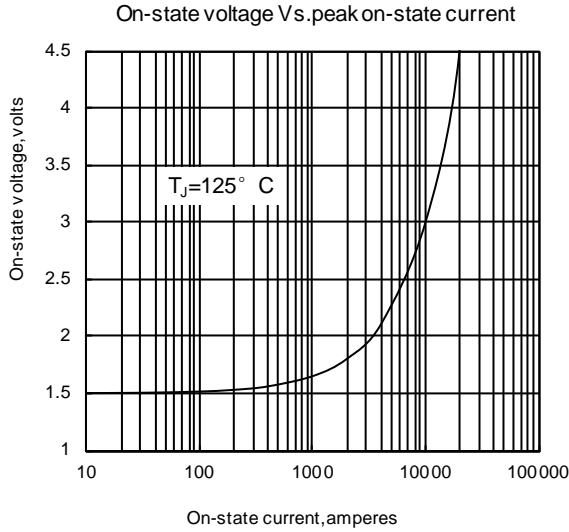


Fig1

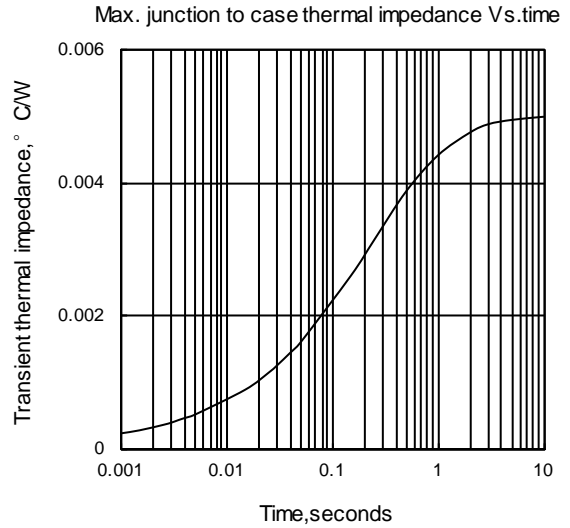


Fig2

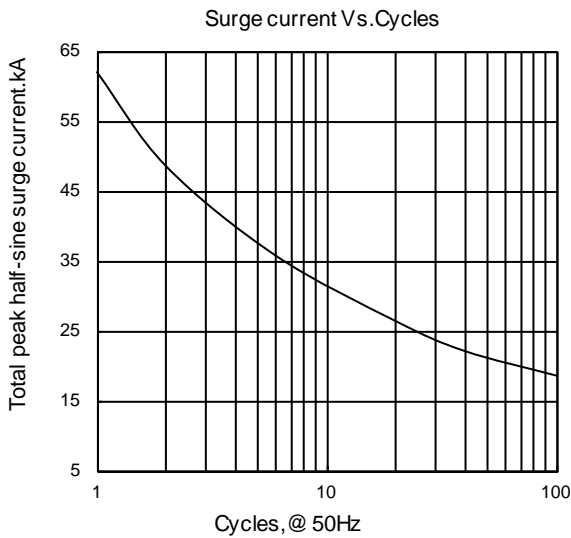


Fig3

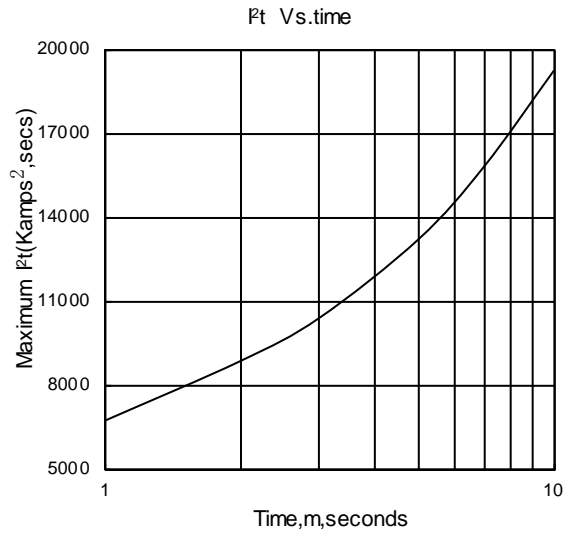


Fig4

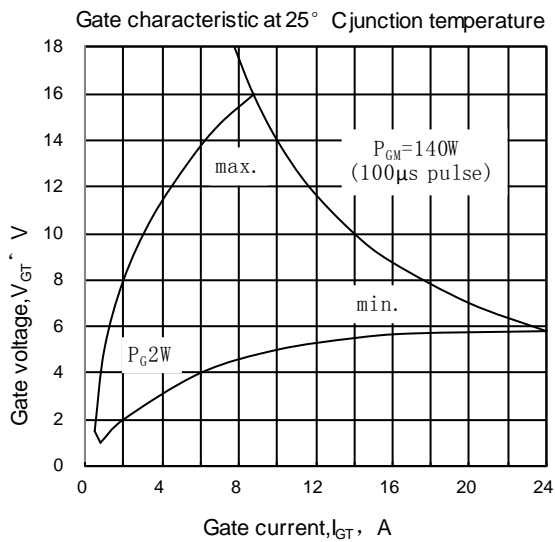


Fig5

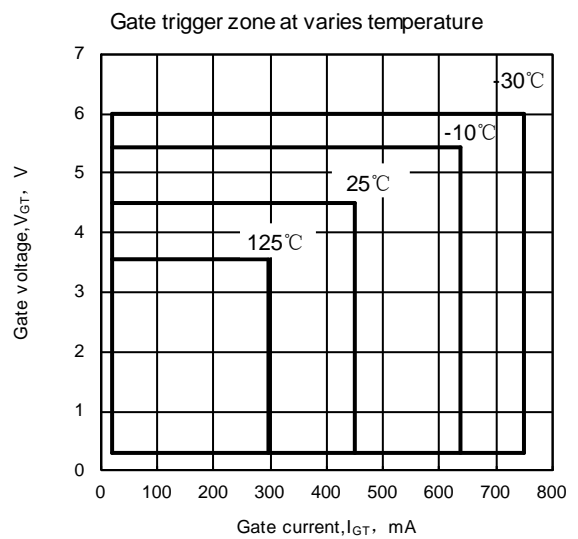


Fig6

Outline:

