

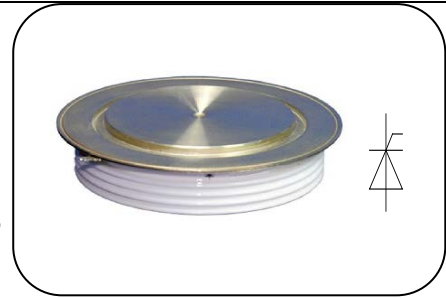
#### Features

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

#### Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$       **2830A**  
 $V_{DRM}/V_{RRM}$     **800~1800V**  
 $t_q$                 **30~60 $\mu$ s**  
 $I_{TSM}$              **31 kA**  
 $I^2t$                 **4805 10<sup>3</sup>A<sup>2</sup>S**



SYMBOL	CHARACTERISTIC	TEST CONDITIONS		T <sub>j</sub> (°C)	VALUE			UNIT
					Min	Type	Max	
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Double side cooled,	T <sub>c</sub> =55°C	125			2830	A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	800		1800	V
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>		125			200	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave		125			31	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>					4805	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage			125			1.22	V
r <sub>T</sub>	On-state slope resistance						0.18	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =4000A, F=40kN		125			1.94	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub>		125			500	V/μs
di/dt	Critical rate of rise of on-state current	V <sub>DM</sub> = 67%V <sub>DRM</sub> to3000A Gate pulse t <sub>r</sub> ≤0.5μs I <sub>GM</sub> =1.5A		125			1200	A/μs
Q <sub>rr</sub>	Recovery charge	I <sub>TM</sub> =2000A, tp=2000μs, di/dt=-60A/μs, V <sub>R</sub> =50V		125		1000		μC
t <sub>q</sub>	Circuit commutated turn-off time	I <sub>TM</sub> =2000A, tp=2000μs, V <sub>R</sub> =50V dv/dt=30V/μs , di/dt=-60A/μs		125	30		60	μs
I <sub>GT</sub>	Gate trigger current			25	40		450	mA
V <sub>GT</sub>	Gate trigger voltage	V <sub>A</sub> =12V, I <sub>A</sub> =1A			0.9		4.5	V
I <sub>H</sub>	Holding current				20		1000	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>		125	0.3			V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine' double side cooled					0.010	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink	Clamping force 40kN					0.003	
F <sub>m</sub>	Mounting force				35		47	kN
T <sub>stg</sub>	Stored temperature				-40		140	°C
W <sub>t</sub>	Weight					1100		g
Outline								

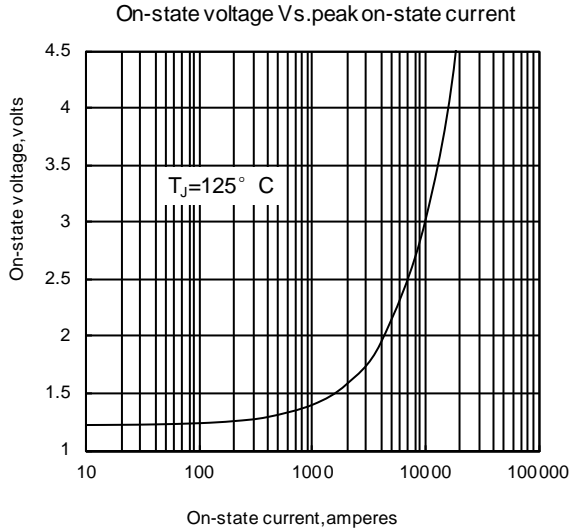


Fig1

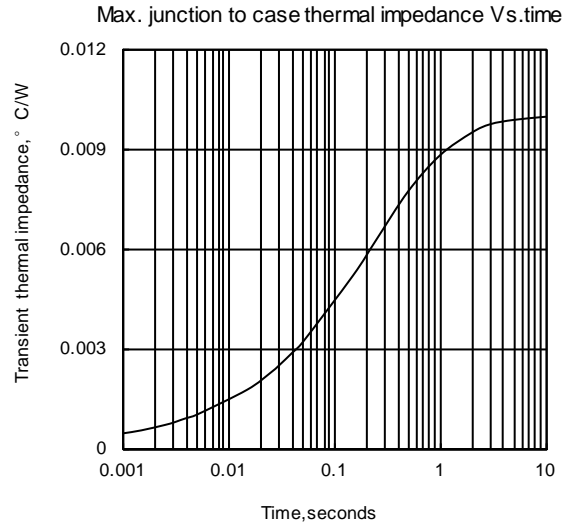


Fig2

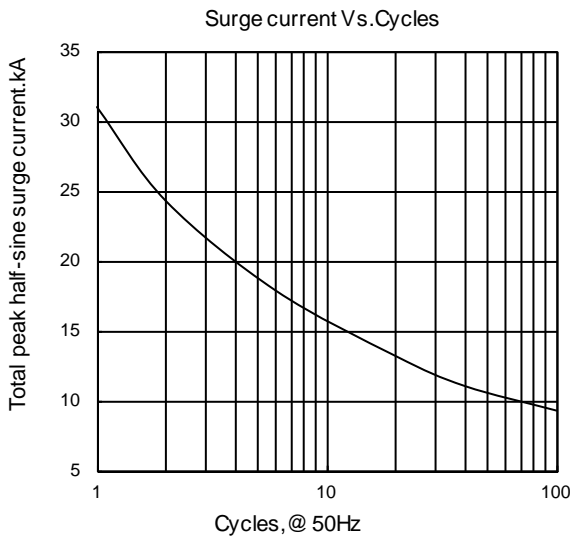


Fig3

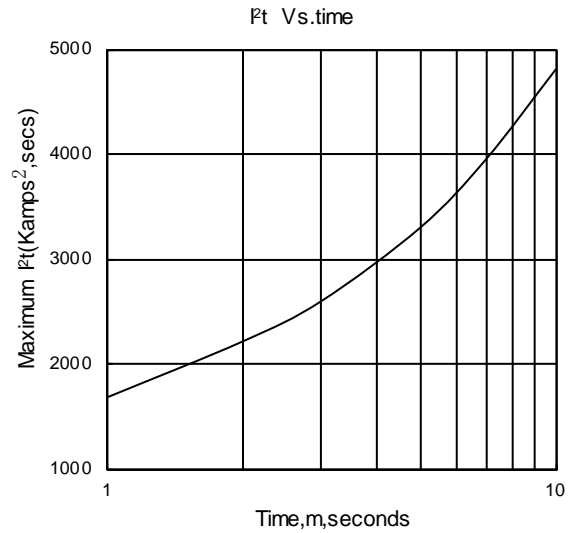


Fig4

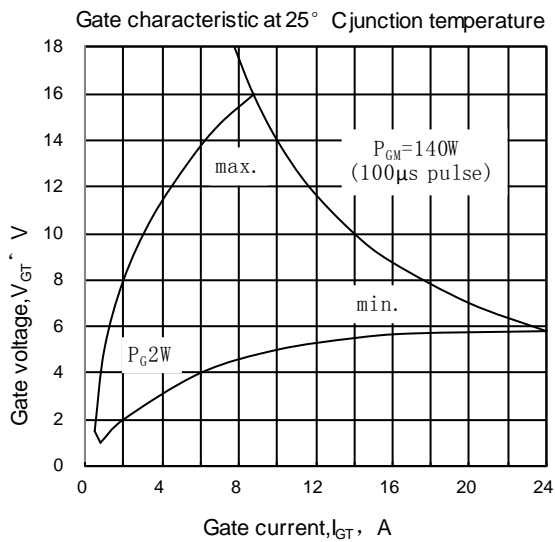


Fig5

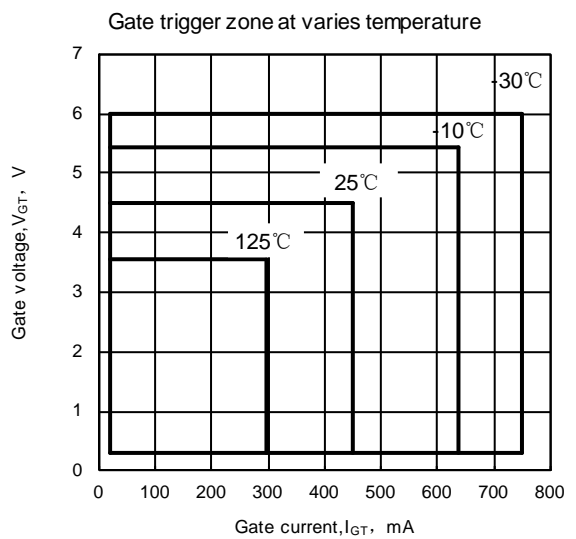


Fig6

**Outline:**

