

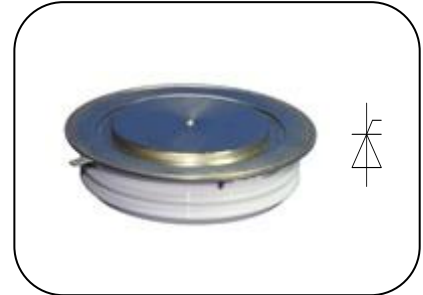
**Features**

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

**Typical Applications**

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	<b>1770A</b>
$V_{DRM}/V_{RRM}$	<b>3100~4000V</b>
$t_q$	<b>50~100<math>\mu</math>s</b>
$I_{TSM}$	<b>18 kA</b>
$I^2t$	<b>1620 10<sup>3</sup>A<sup>2</sup>S</b>



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled,	T <sub>C</sub> =55°C	125		1770	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		160	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave		125		18	kA
$I^2t$	$I^2t$ for fusing coordination					1620	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage			125		1.65	V
$r_T$	On-state slope resistance					0.38	mΩ
$V_{TM}$	Peak on-state voltage	I <sub>TM</sub> =2000A, F=35kN		125		3.40	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		2200	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	50	100	μs
I <sub>GT</sub>	Gate trigger current				40	450	mA
V <sub>GT</sub>	Gate trigger voltage	V <sub>A</sub> =12V, I <sub>A</sub> =1A		25	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	DC double side cooled				0.012	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink	Clamping force 35kN				0.003	
F <sub>m</sub>	Mounting force				30	40	kN
T <sub>stg</sub>	Stored temperature				-40	140	°C
W <sub>t</sub>	Weight					880	g
Outline	P15						

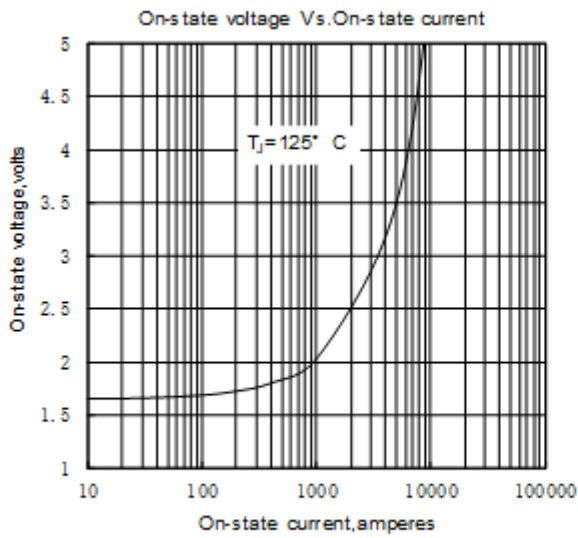


Fig. 1

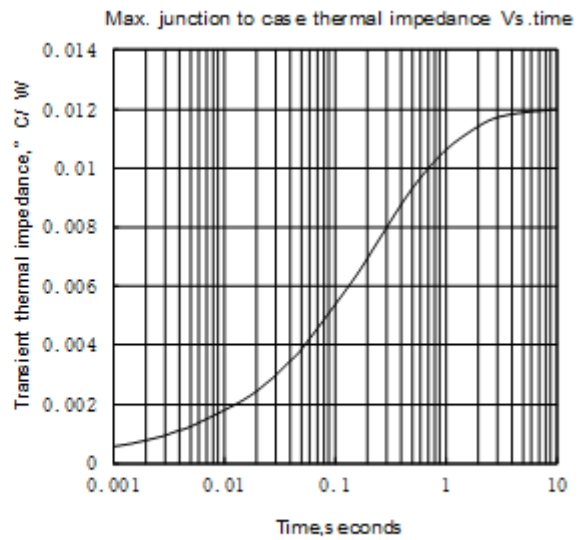


Fig. 2

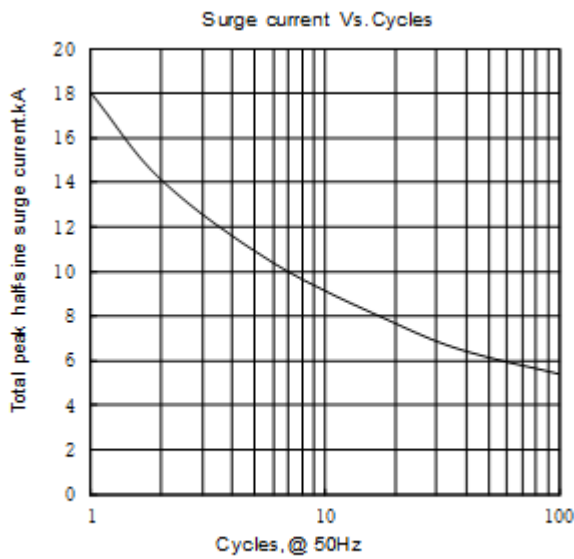


Fig. 3

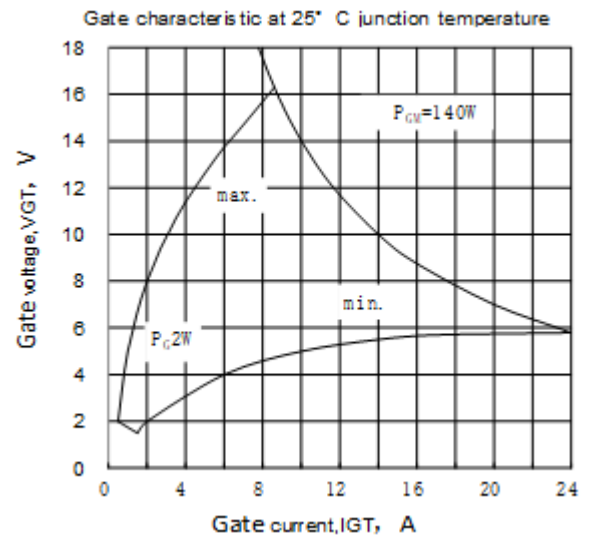


Fig. 4

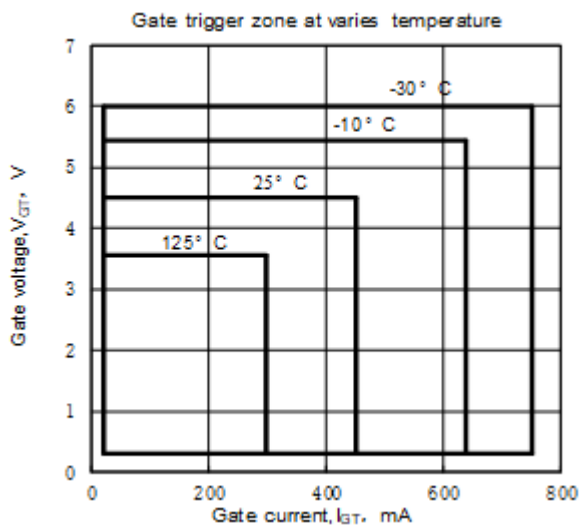
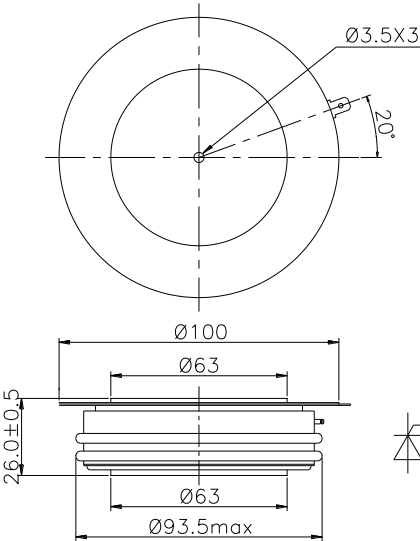


Fig. 5



Nlps reserves the right to change specifications without notice.