

## Features

- Center amplifying gate
- Metal case with ceramic insulator
- Low on-state and switching losses

## Typical Applications

- AC controllers
- DC and AC motor control
- Controlled rectifiers

$I_{T(AV)}$	<b>2539 A</b>
$V_{DRM}/V_{RRM}$	<b>1900-3000V</b>
$I_{TSM}$	<b>33 kA</b>
$I^2t$	<b>5445 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> =70°C	125			2539	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			200	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave, V <sub>R</sub> =0.6V <sub>RRM</sub>		125			33	kA
$I^2t$	I <sup>2</sup> t for fusing coordination						5445	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage			125			0.98	V
$r_T$	On-state slope resistance						0.19	mΩ
$V_{TM}$	Peak on-state voltage	I <sub>TM</sub> =3000A, F=40kN		25			1.68	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub>		125			1000	V/μs
di/dt	Critical rate of rise of on-state current	V <sub>DM</sub> = 67%V <sub>DRM</sub> to 3000A, Gate pulse t <sub>r</sub> ≤0.5μs I <sub>GM</sub> =1.5A		125			250	A/μs
Q <sub>rr</sub>	Recovery charge	I <sub>TM</sub> =2000A, tp=2000μs, di/dt=-20A/μs, V <sub>R</sub> =50V		125		2500		μC
$I_{GT}$	Gate trigger current	V <sub>A</sub> =12V, I <sub>A</sub> =1A		25	40		300	mA
$V_{GT}$	Gate trigger voltage				0.8		3.0	V
$I_H$	Holding current				20		300	mA
$V_{GD}$	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>		125			0.3	V
$R_{th(j-c)}$	Thermal resistance Junction to case	sine double side cooled Clamping force 40.0kN					0.010	°C/W
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.003	
$R_{th(j-c)}$	Thermal resistance Junction to case	DC double side cooled Clamping force 40.0kN					0.0093	°C/W
$F_m$	Mounting force				35		47	kN
T <sub>stg</sub>	Stored temperature				-40		140	°C
W <sub>t</sub>	Weight					1100		g
Outline	P17							

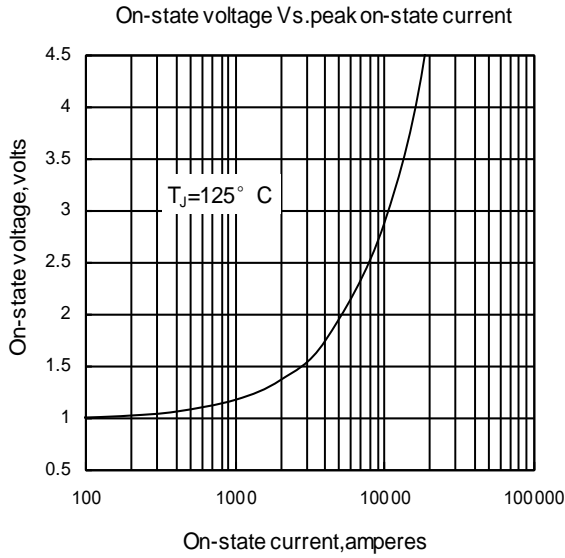


Fig1

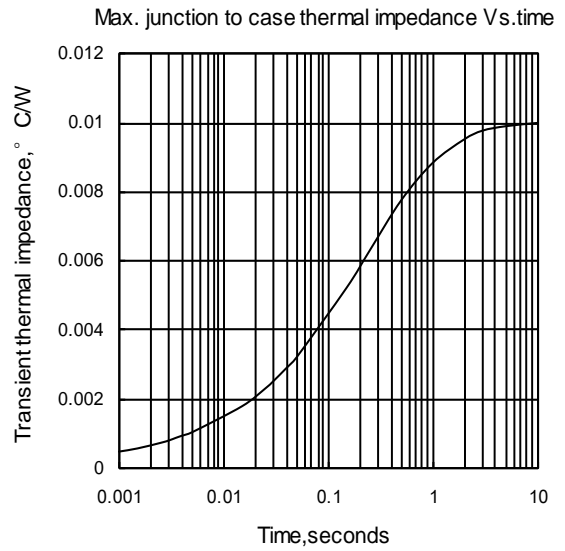


Fig2

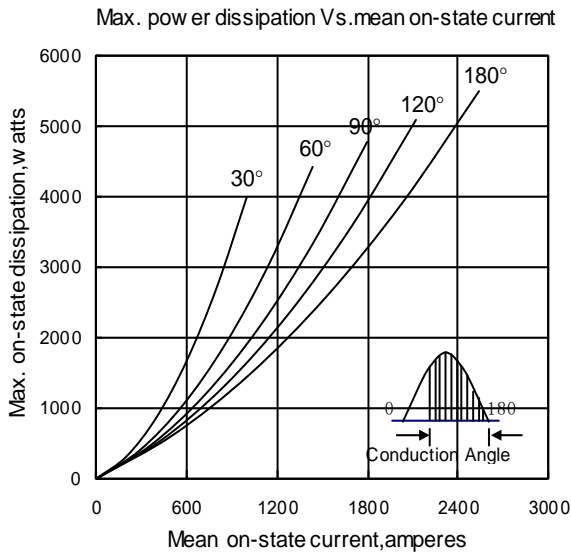


Fig3

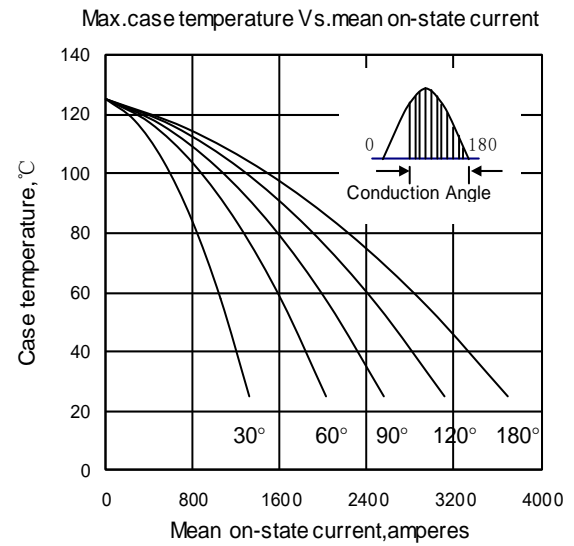


Fig4

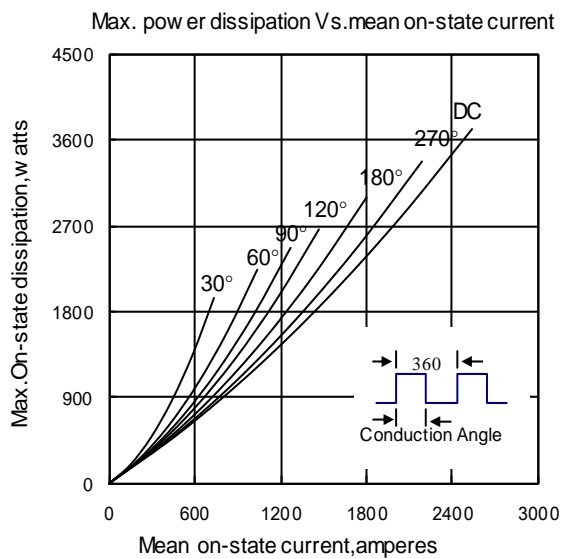


Fig5

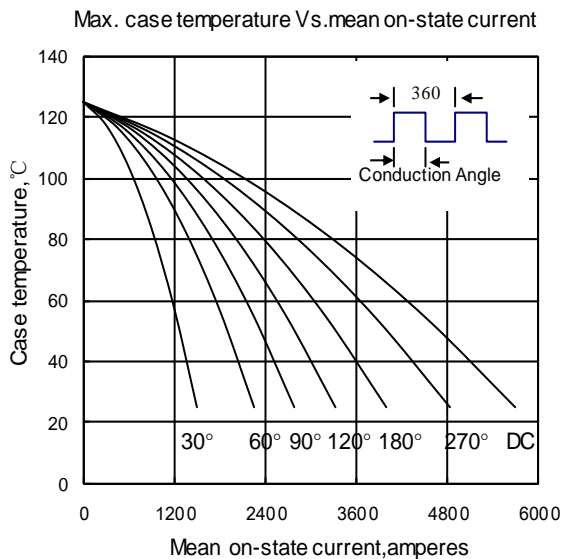


Fig6

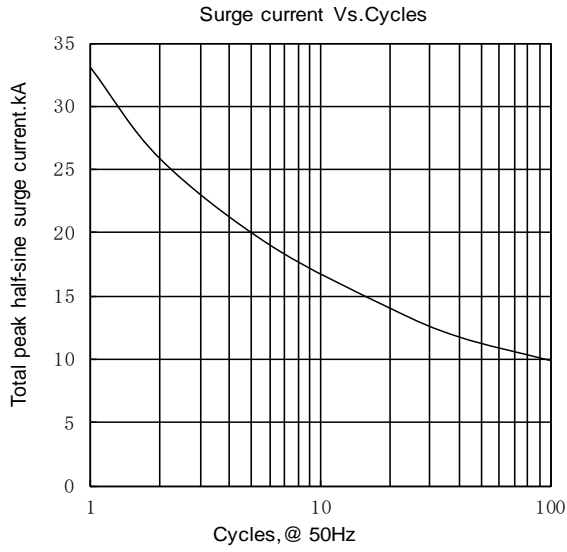


Fig.7

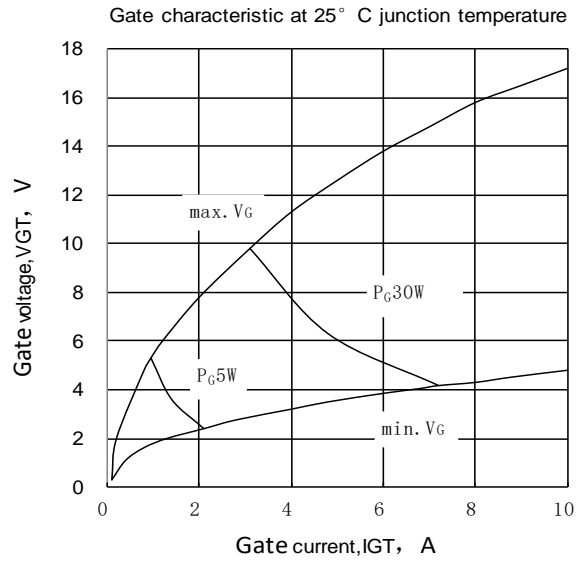


Fig.8

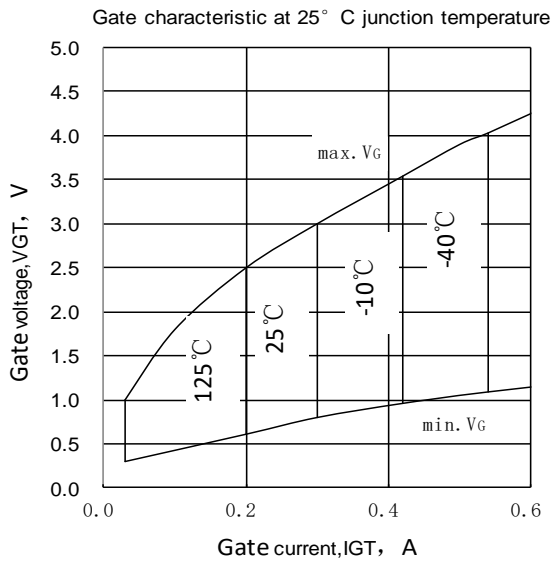
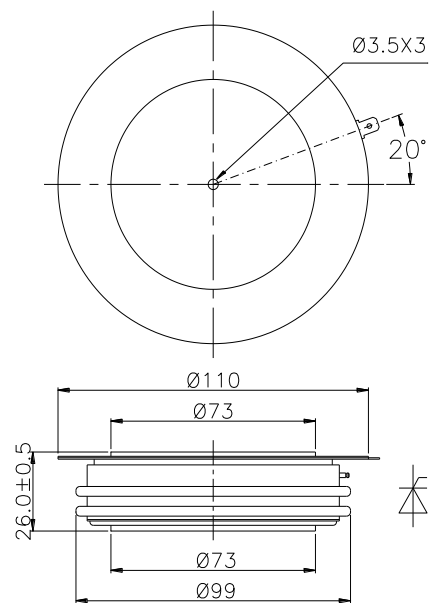


Fig.9



Nlps reserves the right to change specifications without notice.