

## 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>550A</b>
$V_{DRM}/V_{RRM}$	<b>200 ~ 600V</b>
$I_{TSM}$	<b>8.0 kA</b>
$I^2t$	<b>320 10<sup>3</sup>A<sup>2</sup>S</b>

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled	$T_C=70^{\circ}C$	125		550	A
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10ms$		125	200	600	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	at $V_{DRM}$ at $V_{RRM}$		125		16	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave		125		8	kA
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$				320	A <sup>2</sup> s*10 <sup>3</sup>
$V_{TO}$	Threshold voltage			125		0.75	V
$r_T$	On-state slope resistance					0.36	mΩ
$V_{TM}$	Peak on-state voltage	$I_{TM}=1000A, F=5.0kN$		25		1.41	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125		1000	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 800A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$		125		100	A/μs
$Q_{rr}$	Recovery charge	$I_{TM}=1000A, t_p=4000\mu s, di/dt=-20A/\mu s,$ $V_R=100V$		125	600		μC
$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$		25	30	200	mA
$V_{GT}$	Gate trigger voltage				0.8	2.0	V
$I_H$	Holding current				20	150	mA
$I_L$	Latching current					500	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	D.C. double side cooled Clamping force 5.0kN				0.080	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.020	
$F_m$	Mounting force				3.3	5.5	kN
$T_{vj}$	Junction temperature				-40	125	°C
$T_{stg}$	Stored temperature				-40	140	°C
$W_t$	Weight					60	g
Outline	P01						

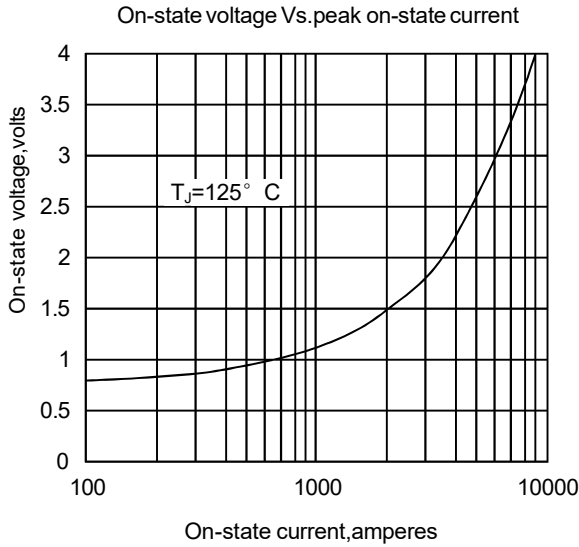


Fig1

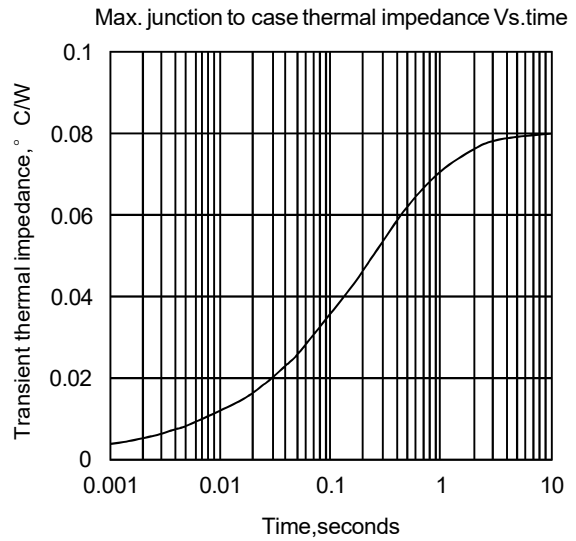


Fig2

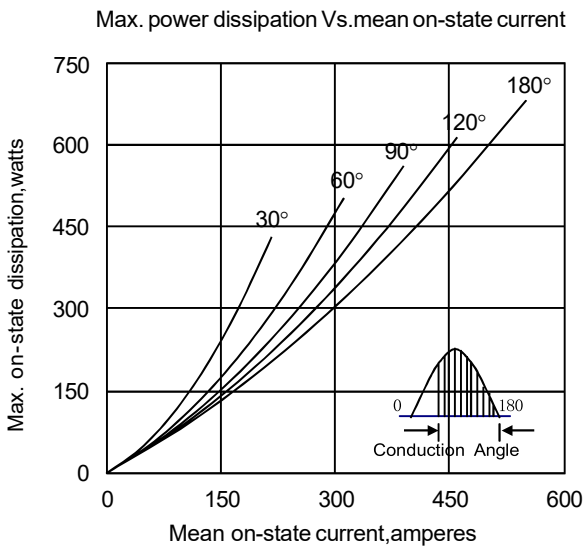


Fig3

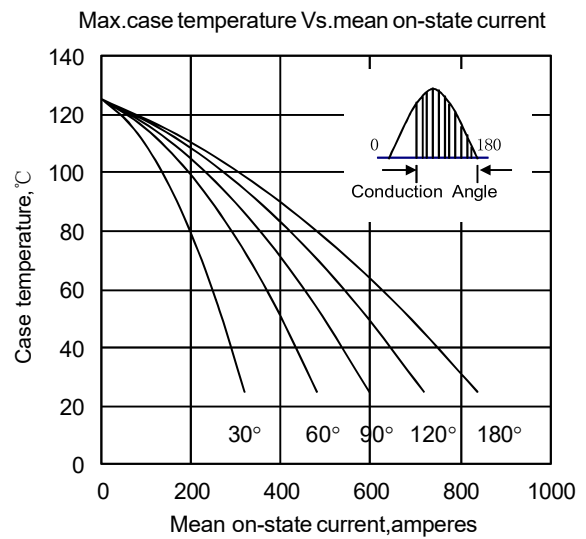


Fig4

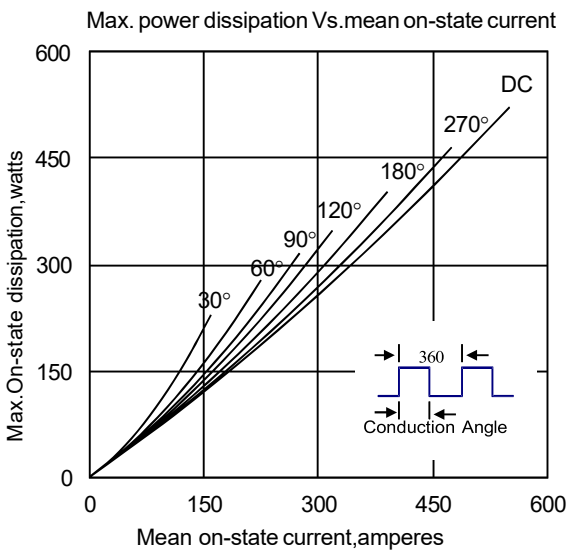


Fig5

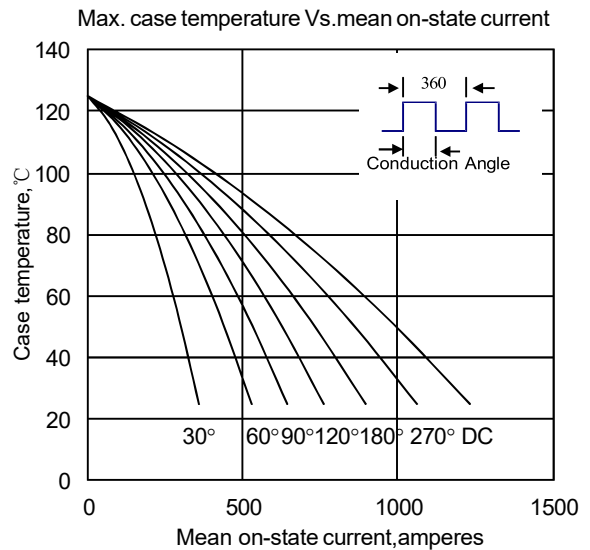


Fig6

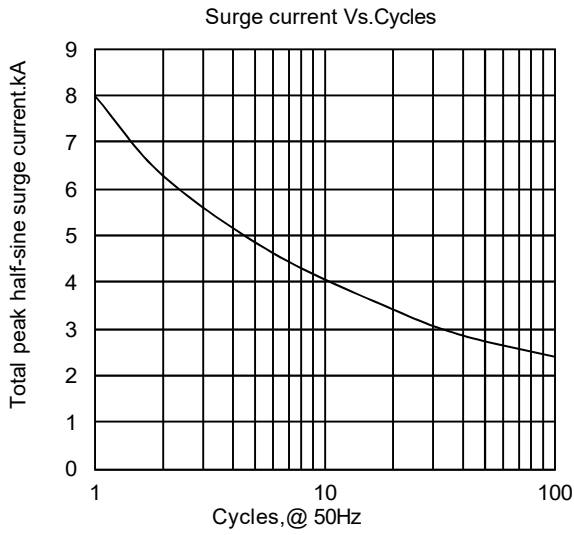


Fig7

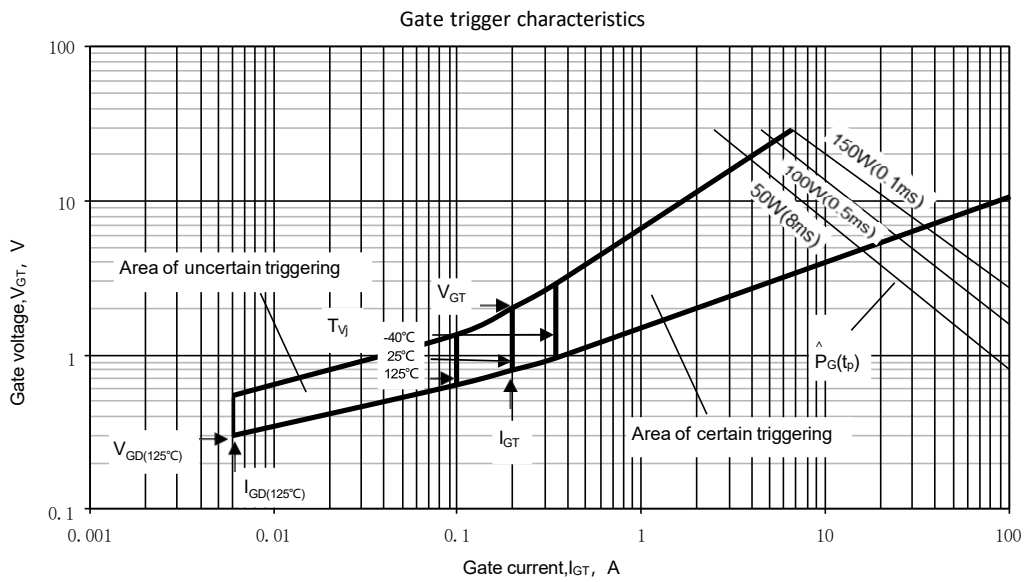
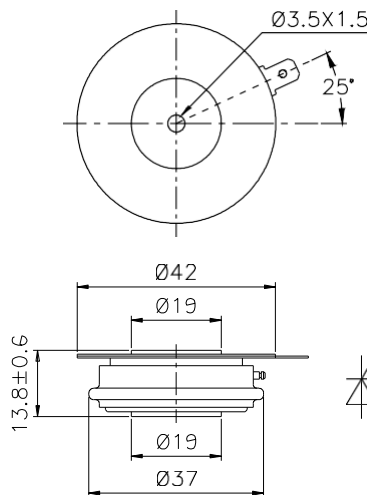


Fig. 8

Outline:



Nlps reserves the right to change specifications without notice.