

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

$I_{T(AV)}$ 850A
 V_{DRM}/V_{RRM} 400 ~ 1000V
 I_{TSM} 9.0 kA
 I^2t 405 $10^3 A^2s$

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,	$T_C=70°C$	125			850	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	400		1000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			30	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			9.0	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$					405	$A^2s \cdot 10^3$
V_{TO}	Threshold voltage			125			0.70	V
r_T	On-state slope resistance						0.35	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1200A, F=7kN$		25			2.20	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 1300A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$		125			100	A/μs
Q_{rr}	Recovery charge	$I_{TM}=1000A, tp=4000\mu s, di/dt=-20A/\mu s,$ $V_R=100V$		125		1030		μC
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$		25	35		250	mA
V_{GT}	Gate trigger voltage				0.8		2.5	V
I_H	Holding current				20		200	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 7kN					0.045	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.010	
F_m	Mounting force				5.3		10	kN
T_{vj}	Junction temperature				-40		125	°C
T_{sig}	Stored temperature				-40		140	°C
W_t	Weight					80		g
Outline	P02							

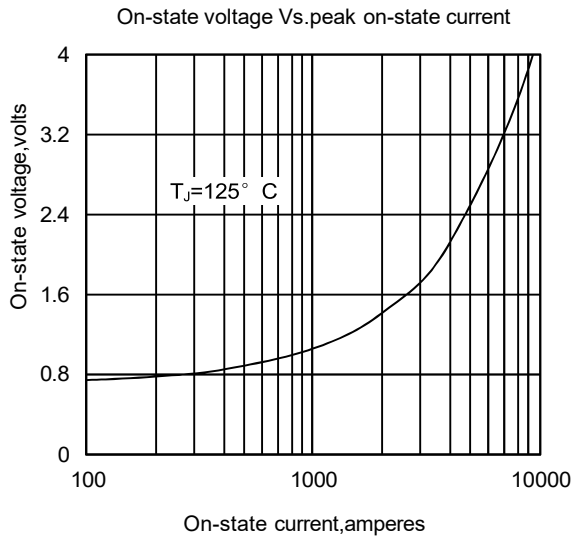


Fig1

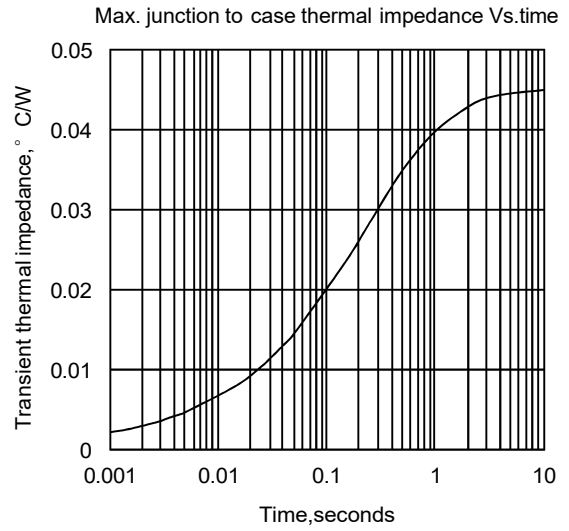


Fig2

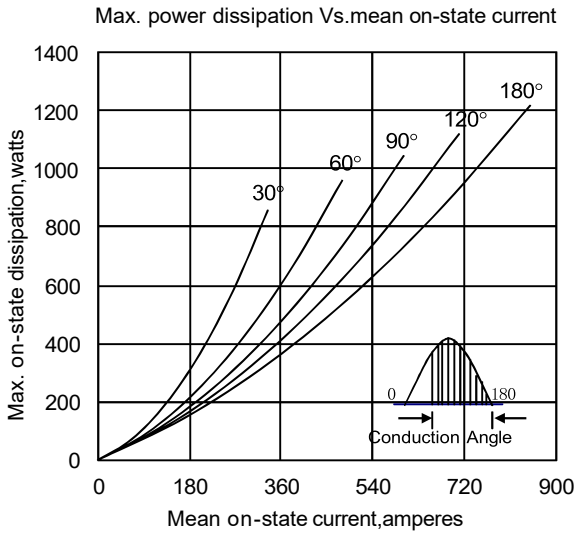


Fig3

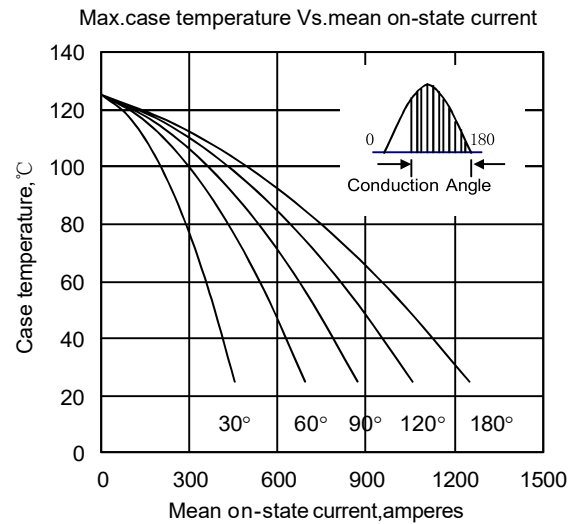


Fig4

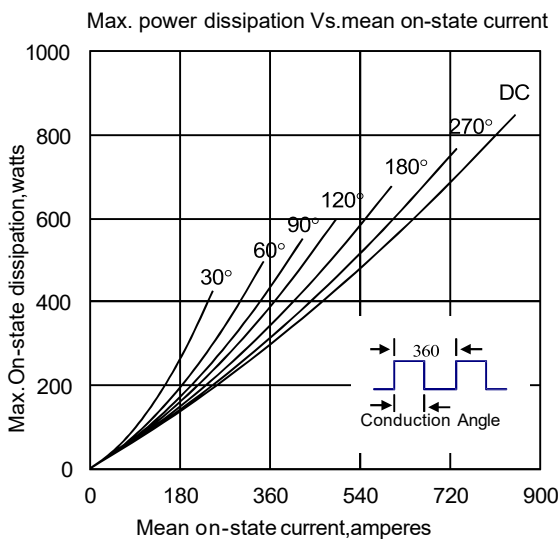


Fig5

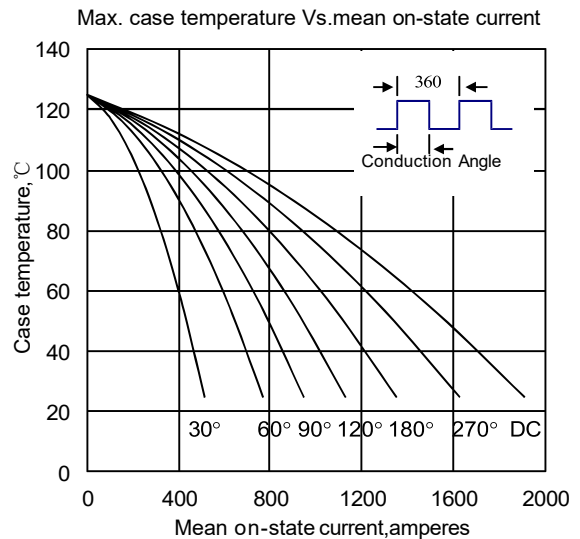


Fig6

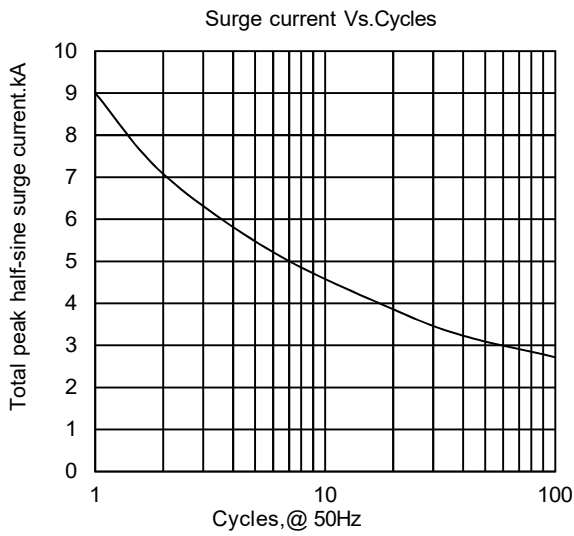


Fig7

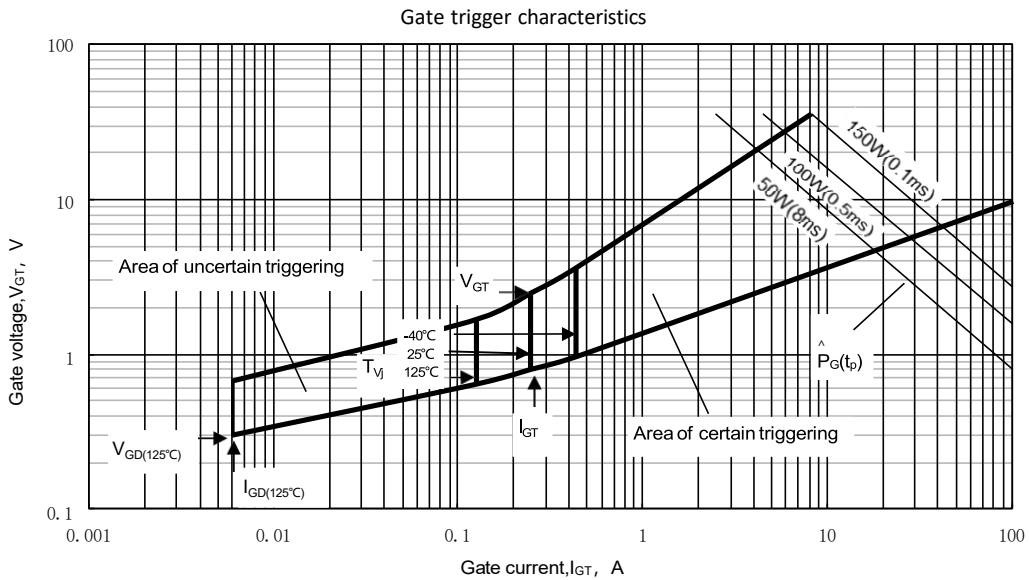
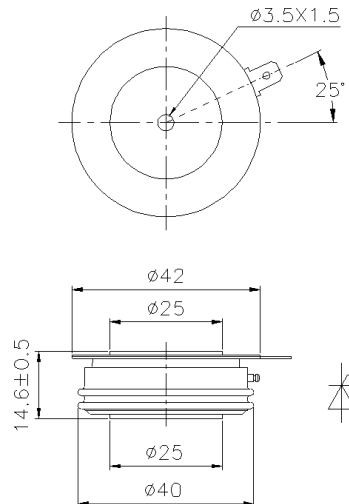


Fig. 8

Outline:



Nlps reserves the right to change specifications without notice.