

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

$I_{T(AV)}$ 600A
 V_{DRM}/V_{RRM} 1100 ~ 1800V
 I_{TSM} 7.5 kA
 I^2t 281 10³A²s

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			600	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	1100		1800	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 V _R =0.6V _{RRM}		125			7.5	kA
I^2t	I ² t for fusing coordination						281	A ² s*10 ³
V _{TO}	Threshold voltage			125			0.88	V
r _T	On-state slope resistance						0.80	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =900A, F=7.0kN		25			2.00	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 ≤0.5μs I _{GM} =1.5A Repetitive		125			100	A/μs
Q _{rr}	Recovery charge	I _{TM} =1000A, tp=4000μs, di/dt=-20A/μs, 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} =0.67V _{DRM}		125			0.3	V
R _{th(j-c)}	Thermal resistance Junction to case	D.C. double side cooled Clamping force 7.0kN					0.040	°C/W
R _{th(c-h)}	Thermal resistance case to heat sink						0.010	
m	Mounting force				5.3		10	kN
T _{vj}	Junction temperature				-40		125	°C
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					80		g
Outline	P02							

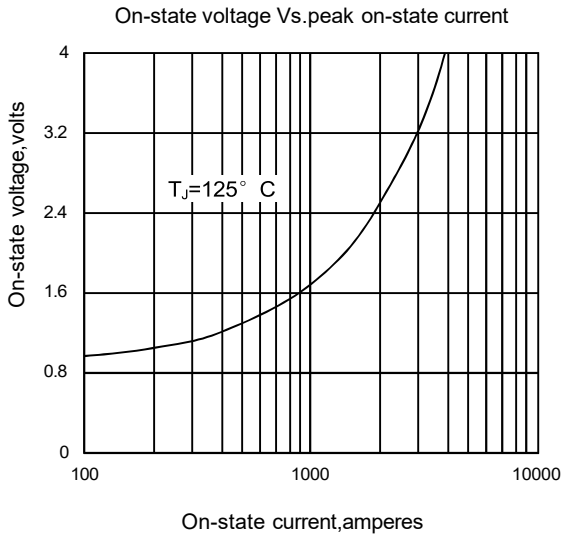


Fig1

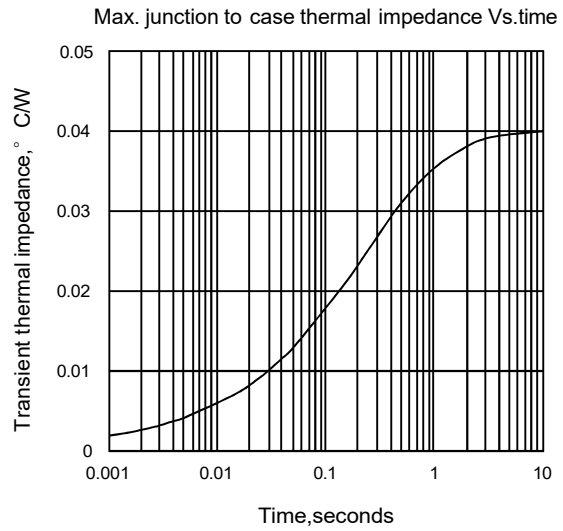


Fig2

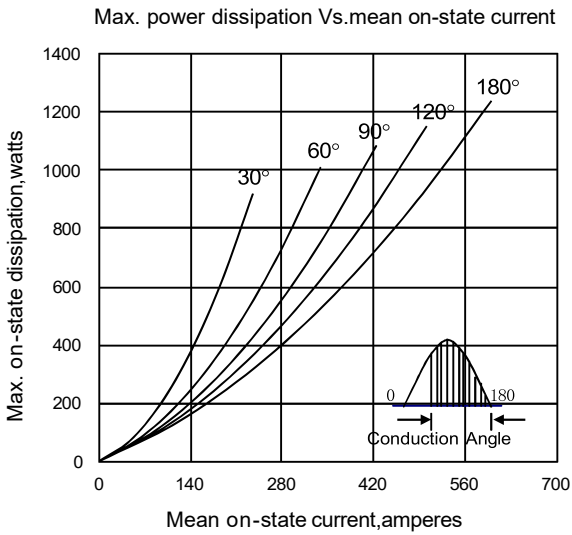


Fig3

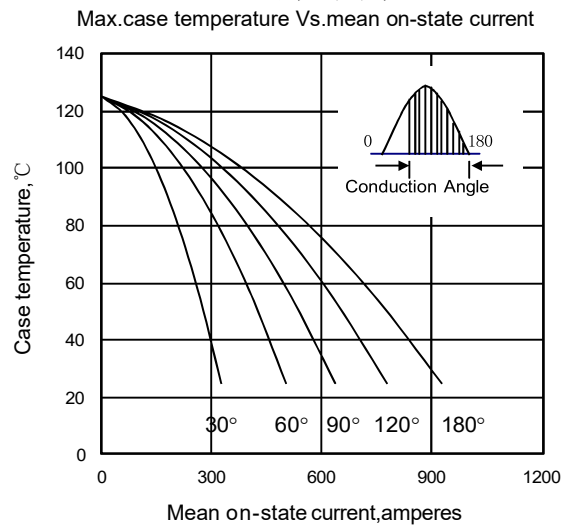


Fig4

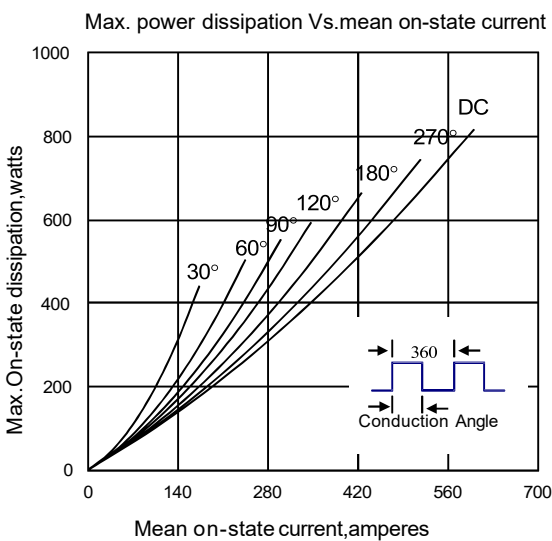


Fig5

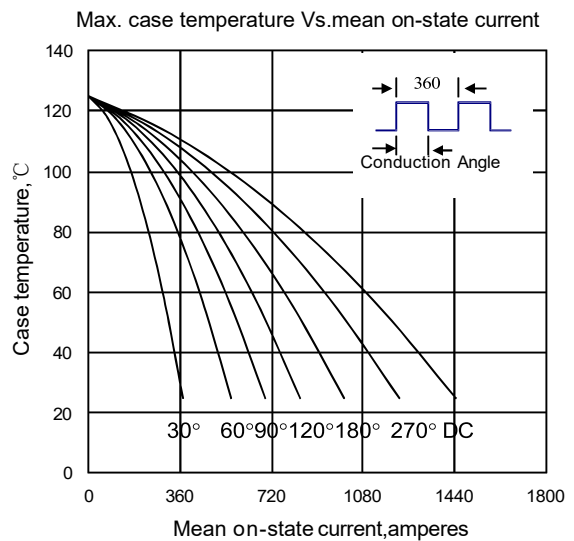


Fig6

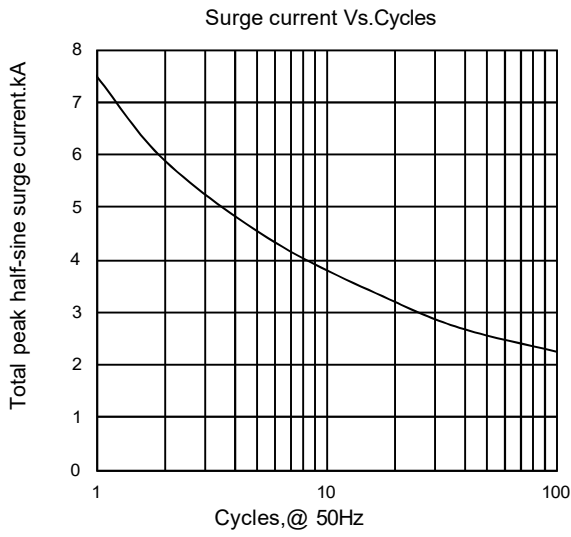


Fig7

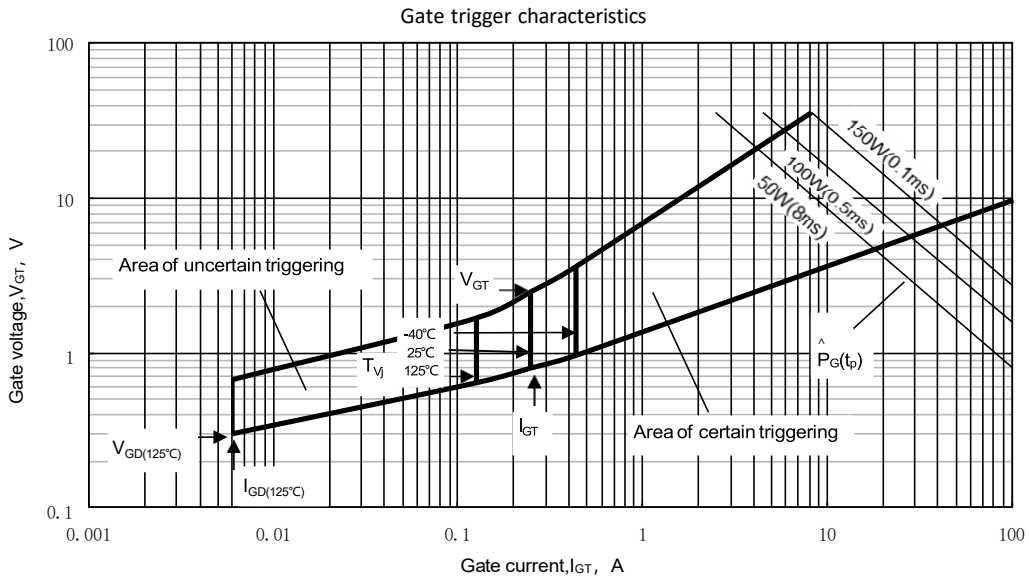
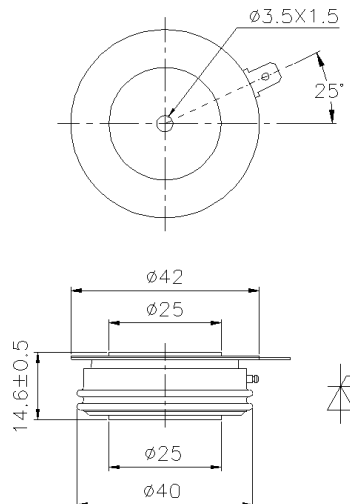


Fig. 8

Outline:



Nlps reserves the right to change specifications without notice.