

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

$I_{T(AV)}$	590A
V_{DRM}/V_{RRM}	3100 ~ 4200V
I_{TSM}	7 kA
I^2t	245 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			590	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	3100		4200	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			50	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			7	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$					245	A ² s*10 ³
V_{TO}	Threshold voltage			125			1.18	V
r_T	On-state slope resistance						1.00	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1000A, F=15kN$		25			3.00	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	$V_{DM}=67\%V_{DRM}$ to800A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A		125			100	A/μs
Q _{rr}	Recovery charge	$I_{TM}=1000A, tp=4000μs, di/dt=-20A/μs,$ $V_R=100V$		125		1400		μC
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$		25	35		300	mA
V_{GT}	Gate trigger voltage				0.8		2.5	V
I_H	Holding current				20		250	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 force15kN					0.035	°C/W
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.008	
F_m	Mounting force				10		20	kN
T _{vj}	Junction temperature				-40		125	°C
T _{sig}	Stored temperature				-40		140	°C
W _t	Weight					240		g
Outline	P08							

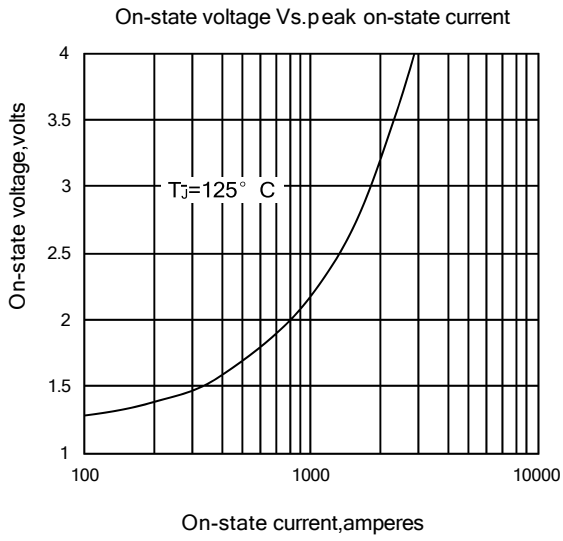


Fig1

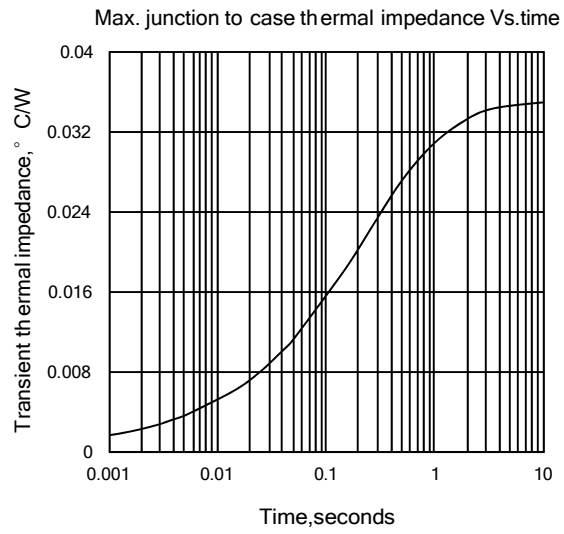


Fig2

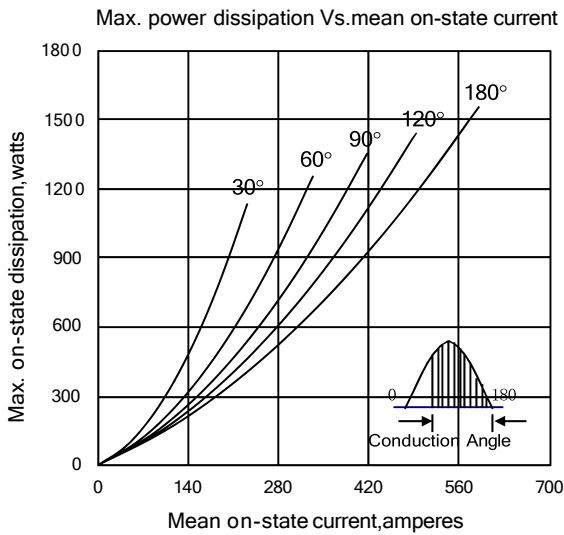


Fig3

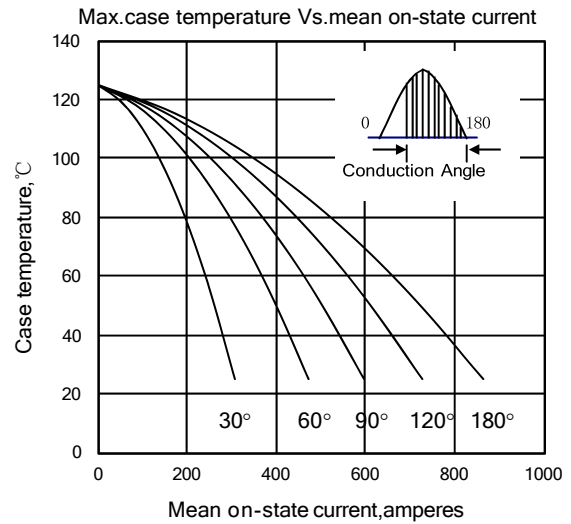


Fig4

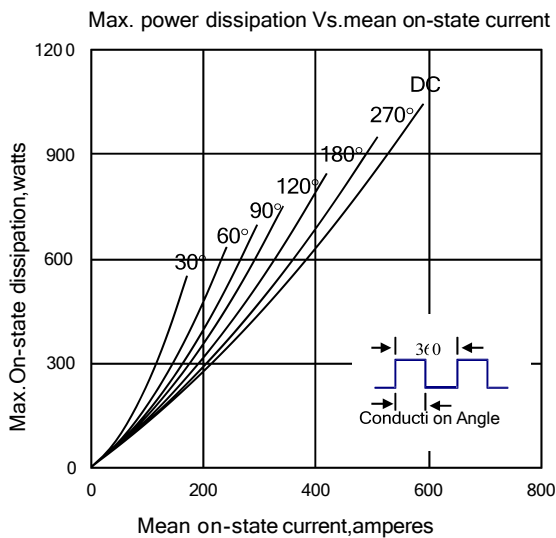


Fig5

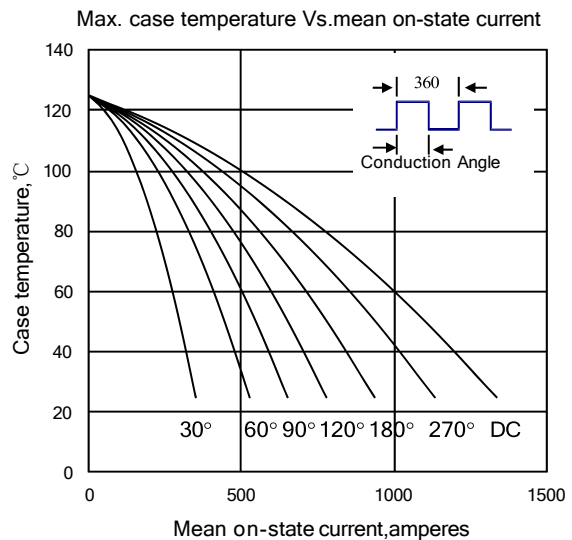


Fig6

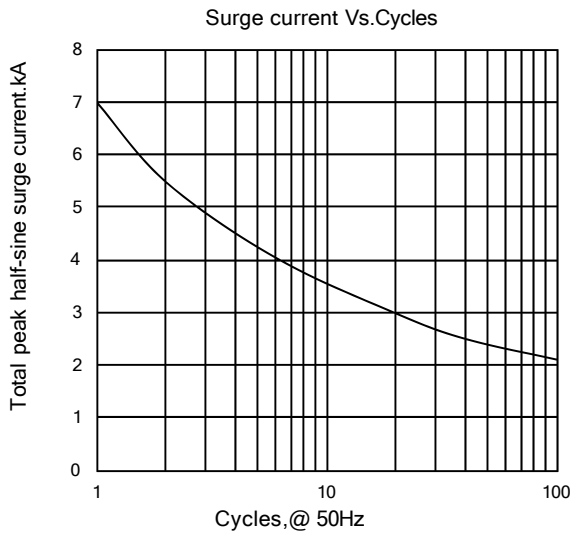


Fig7

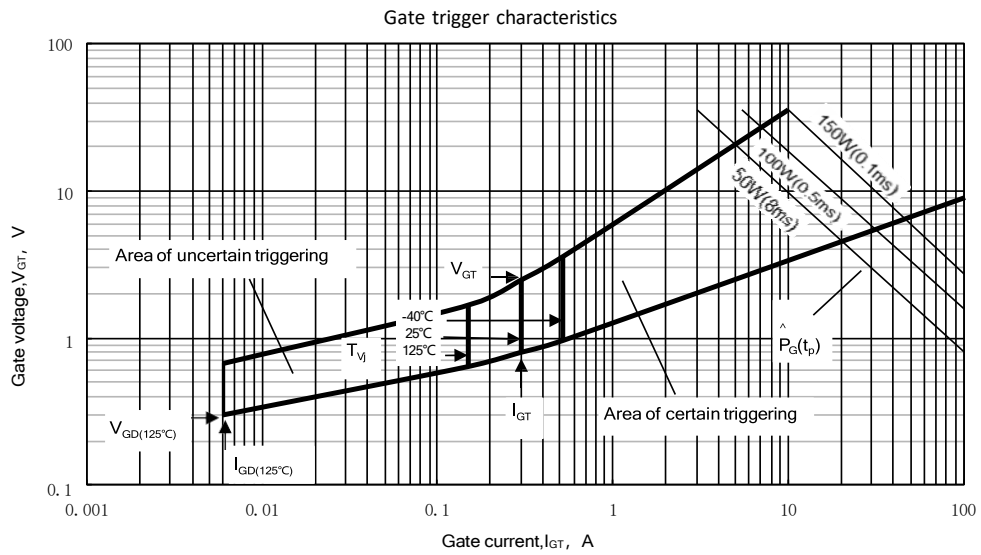
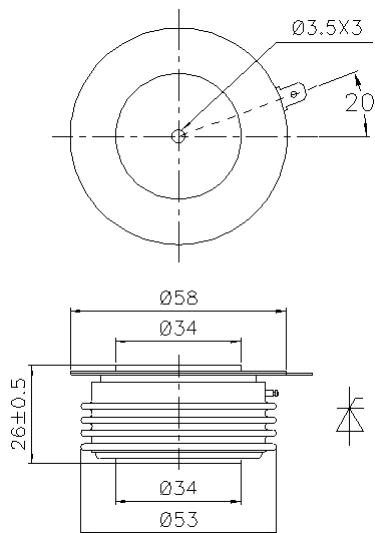


Fig. 8

Outline:



Nlps reserves the right to change specifications without notice.