

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

$I_{T(AV)}$	420A
V_{DRM}/V_{RRM}	5600 ~ 6500V
I_{TSM}	4.5 kA
I^2t	101 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			420	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	5600		6500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			150	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			4.5	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$						101
V_{TO}	Threshold voltage			125			1.25	V
r_T	On-state slope resistance							2.20
V_{TM}	Peak on-state voltage	$I_{TM}=1000A, F=15kN$		25			3.50	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			2000	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_{tr}	Recovery charge	$I_{TM}=2000A, tp=4000\mu s, di/dt=-5A/\mu s,$ $V_R=100V$		125		2000		μC
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$		25	40		300	mA
V_{GT}	Gate trigger voltage				0.8		3.0	V
I_H	Holding current				25		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 15kN					0.035	°C/W
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.008	°C/W
F_m	Mounting force				10	15	20	kN
T_{vj}	Junction temperature				-40		125	°C
T_{stg}	Stored temperature				-40		140	°C
W_t	Weight					240		g
Outline	P08							

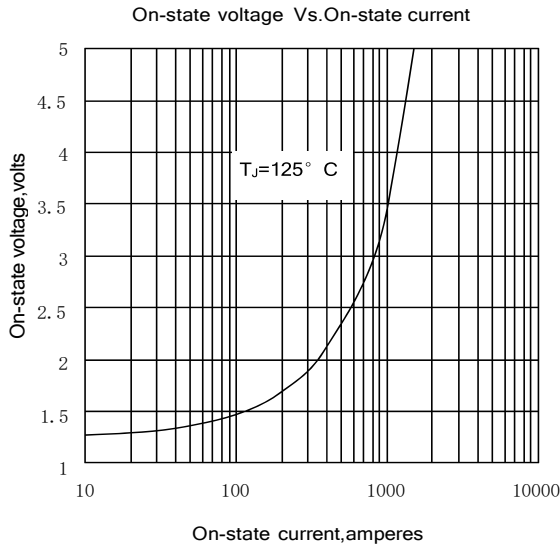


Fig.1

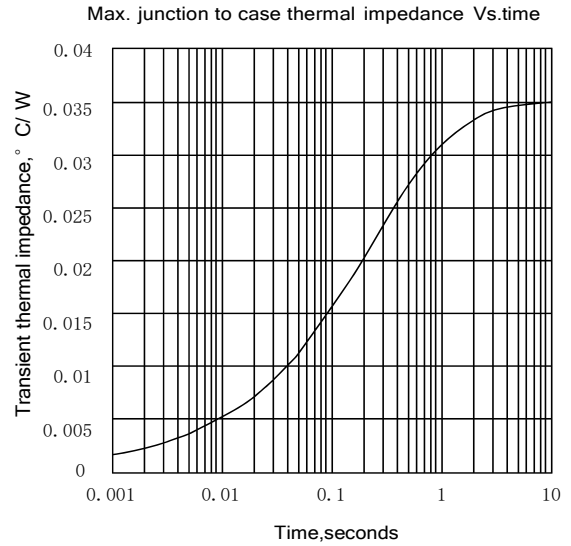


Fig.2

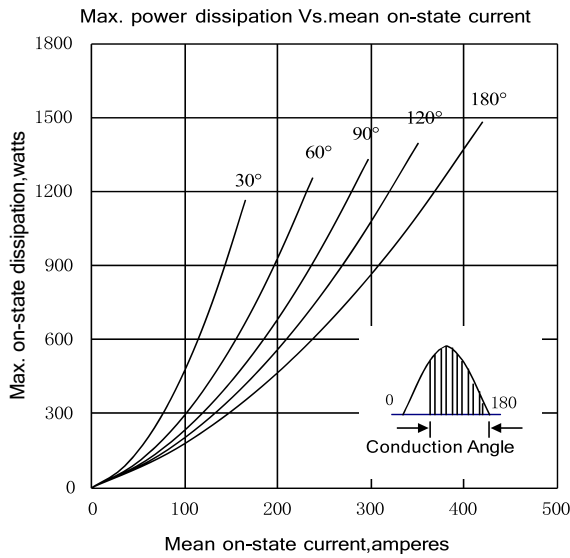


Fig.3

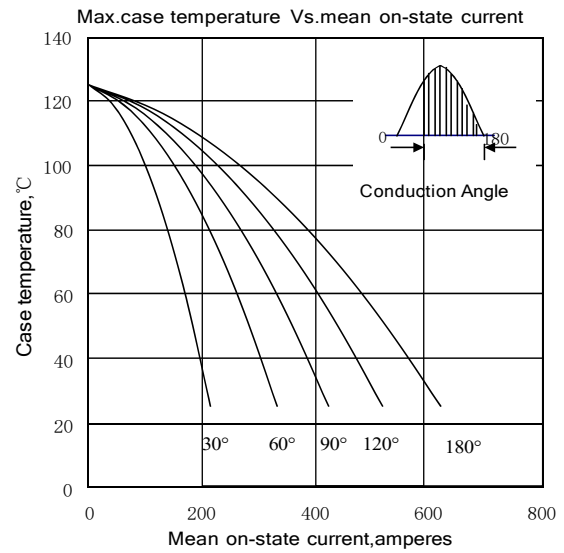


Fig.4

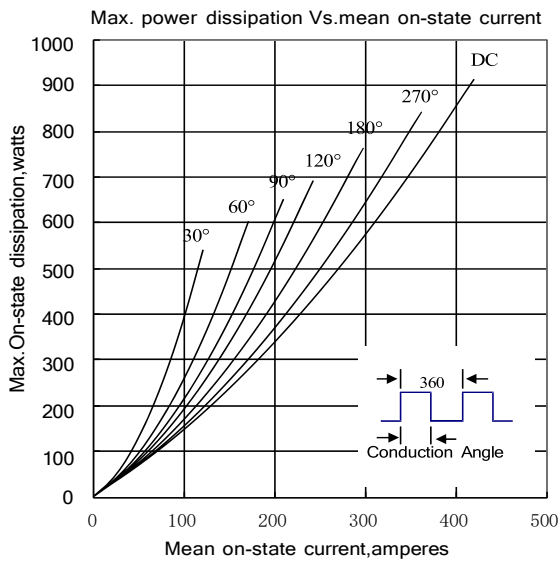


Fig5

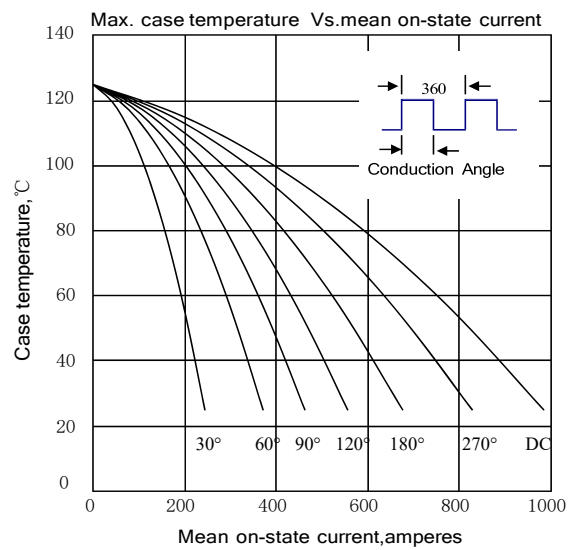


Fig6

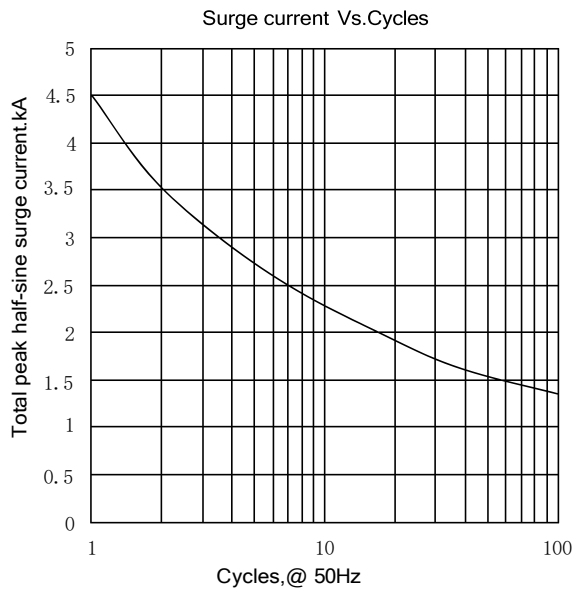


Fig.7

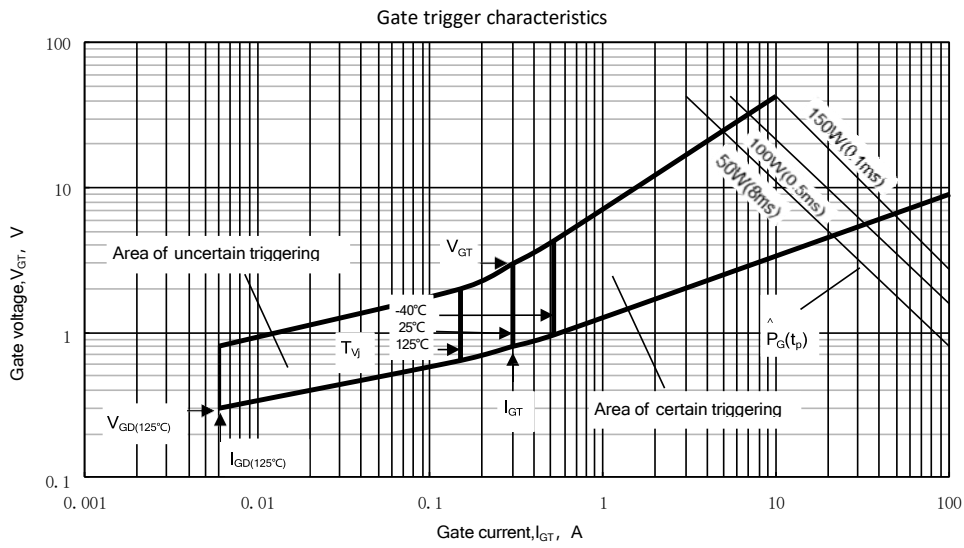
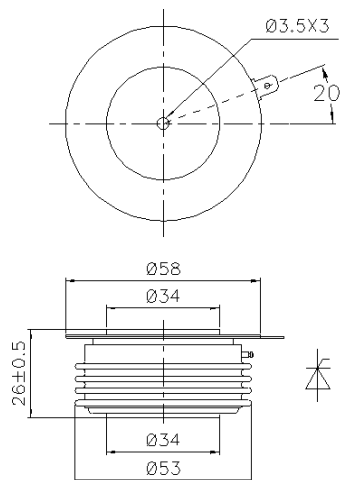


Fig.8

Outline:



Nlps reserves the right to change specifications without notice.