

Features

- Cener amplifying gate
- Metal case with ceramic insulator
- Low on-state and switching losses

Typical Applications

- AC controllers
- DC and AC motor control
- Controlled rectifiers

$I_T(AV)$	4200A
V_{DRM}/V_{RRM}	5600 ~ 6500V
I_{TSM}	71 kA
I^2t	25500 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			4200	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			800	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			71	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$				25500	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.15	V
r_T	On-state slope resistance					0.17	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=3000A, F=120kN$	25			1.73	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 3000A, Gate pulse tr ≤0.5μs IGM=1.5A	125			250	A/μs
Q _{tr}	Recovery charge	$I_{TM}=2000A, tp=4000μs, di/dt=-5A/μs,$ $V_R=100V$	125		5500		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			30		250	mA
I_L	Latching current					1000	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 120.0kN				0.004	°C/W
$R_{th(c-h)}$	Thermal resistance case to heatsink					0.001	°C/W
F_m	Mounting force			110	120	140	kN
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				3420		g
Outline	P31						

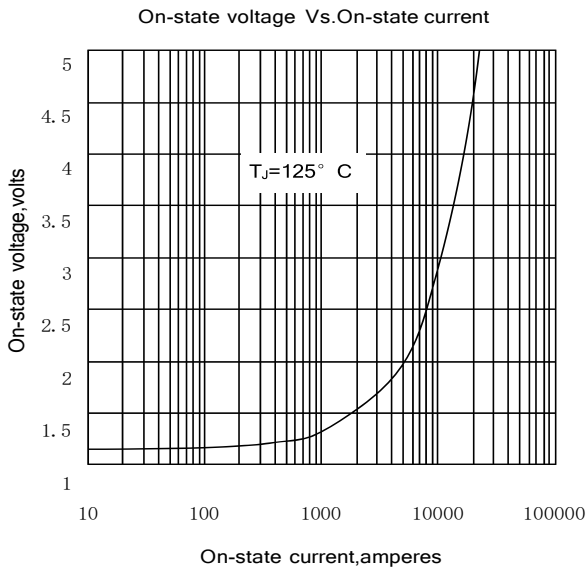


Fig.1

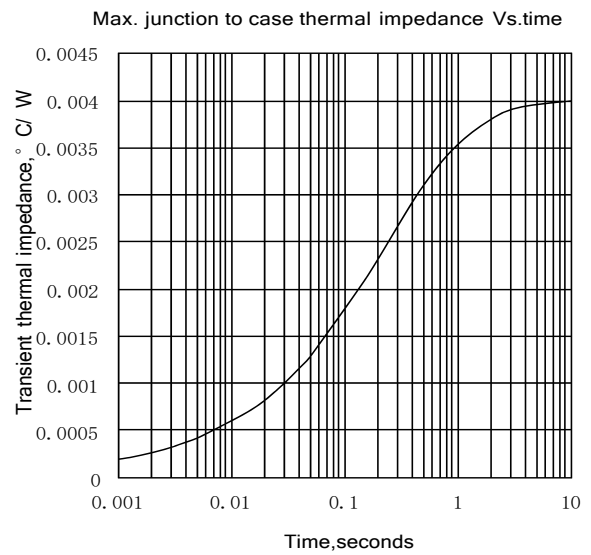


Fig.2

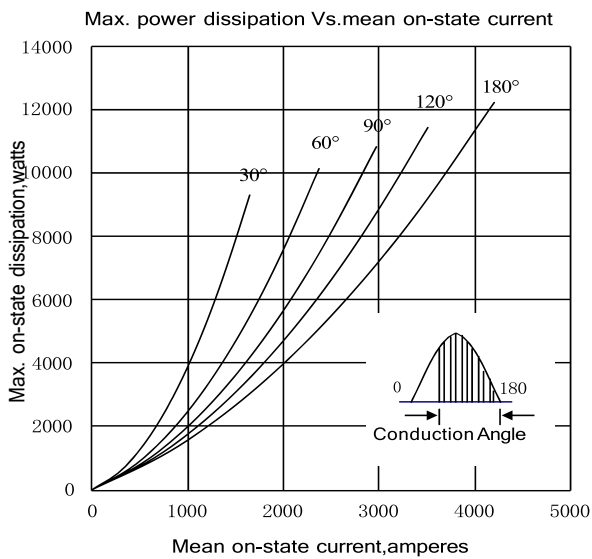


Fig.3

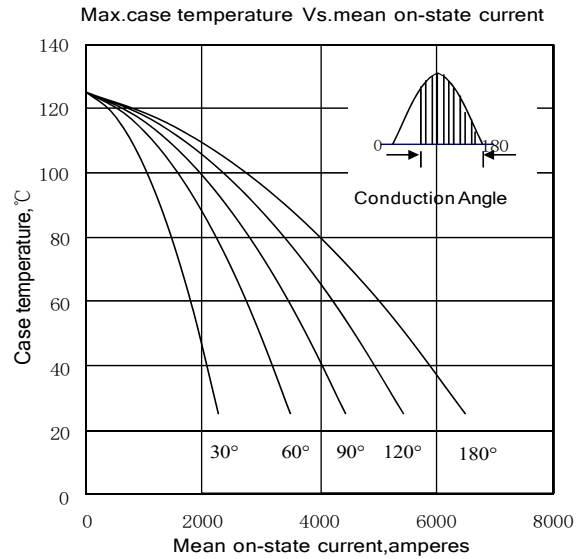


Fig.4

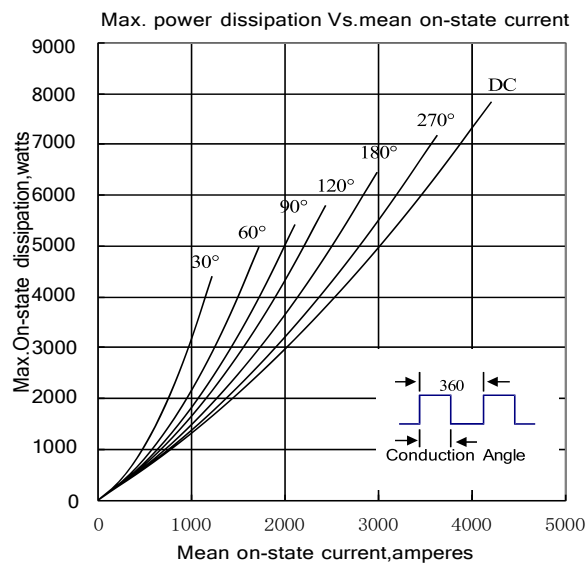


Fig.5

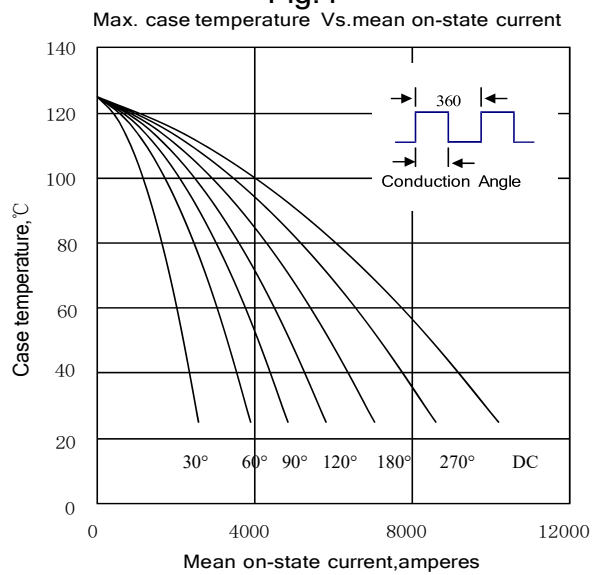


Fig.6

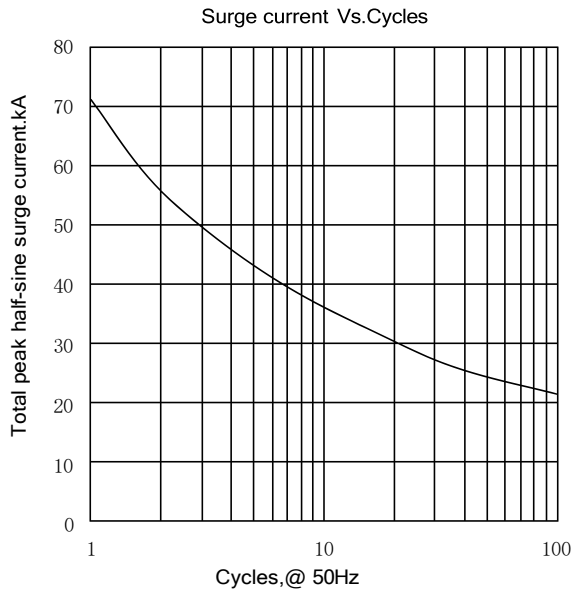


Fig.7

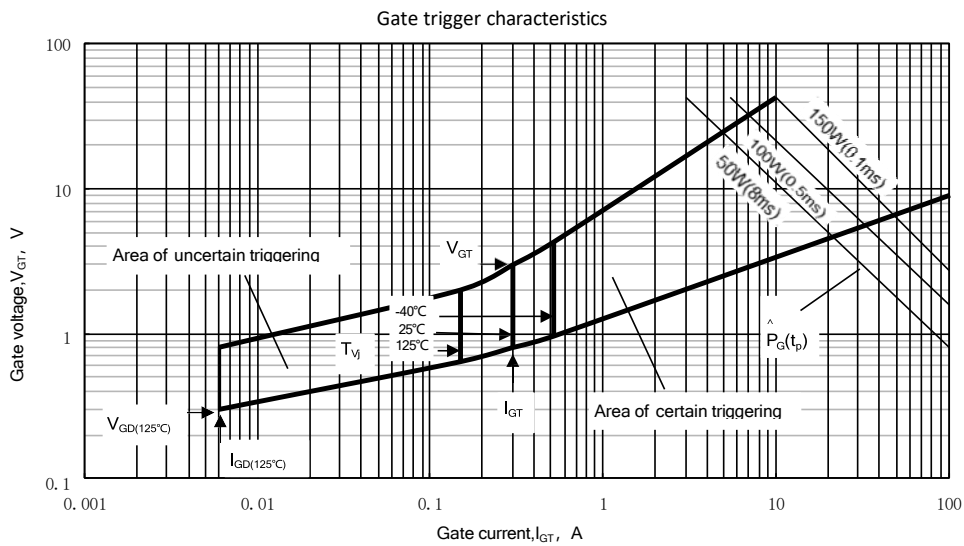
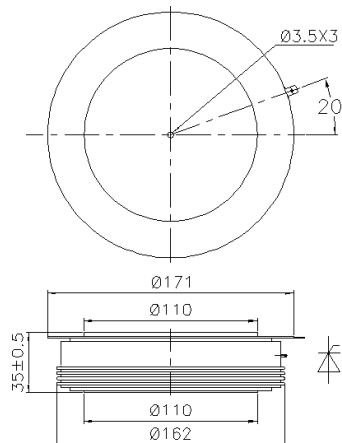


Fig.8

Outline:



Nlps reserves the right to change specifications without notice.