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

$I_{T(AV)}$	**900A**
V_{DRM}/V_{RRM}	**3200 ～ 3500V**
I_{TSM}	**20 kA**
I^2t	**2000 10^3A^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=88°C	125			900	A
			T_C=98°C	125			800	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	3200		3500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			120	mA
I_{TSM}	Surge on-state current	10ms half sine wave VR=0		25			20	kA
I^2t	I^2t for fusing coordination						2000	A^2s*10^3
I_{TSM}	Surge on-state current			125			18	kA
I^2t	I^2t for fusing coordination						1620	A^2s*10^3
V_{TO}	Threshold voltage			125			1.18	V
r_T	On-state slope resistance						0.36	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=2500A, F=26kN		25			2.08	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}		125			200	A/μs
Q_{rr}	Recovery charge	I_{TM}=800A, tp=4000μs, di/dt=-20A/μs, V_R=100V		125		1950		μC
I_{rM}	Recovery current					100		A
tq	Circuit commutated turn-off time	I_{TM}=800A, V_{DM}=67%V_{DRM}, di/dt=-20A/μs, dv/dt=30V/μs ,V_R=100V				350		μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A		25	90		250	mA
V_{GT}	Gate trigger voltage				0.8		2.5	V
I_{GT}	Gate trigger current	V_A=12V, I_A=1A		-60			500	mA
V_{GT}	Gate trigger voltage						5.0	V
I_H	Holding current	V_A=12V, I_A=1A		25	20		300	mA
I_L	Latching current						1000	mA
t_{on}	Turn-on time	tp≤200μs, I_A≥1A		25		10		μs
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 26kN					0.018	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.006	
F_m	Mounting force				21		30	kN
T_{vj}	Junction temperature				-60		125	°C
T_{stg}	Stored temperature				-60		60	°C
W_t	Weight					550		g
Outline	P11b							

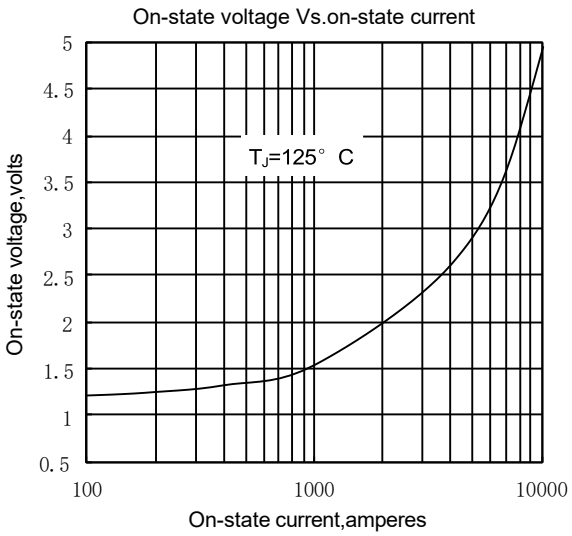


Fig.1

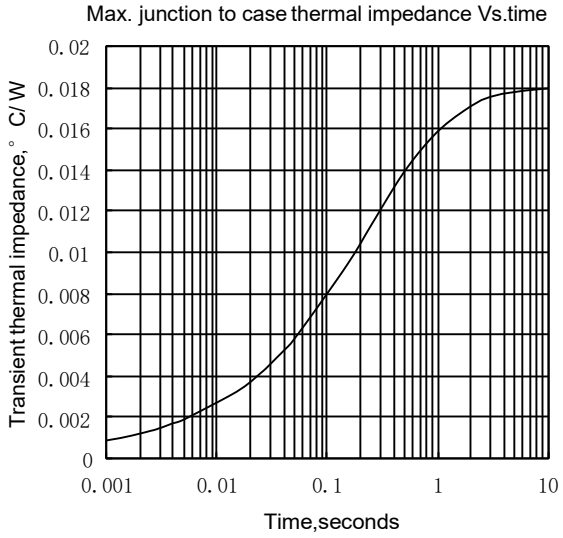


Fig.2

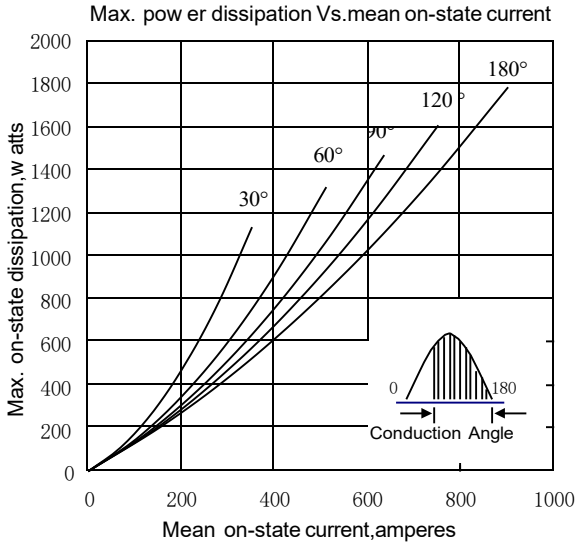


Fig.3

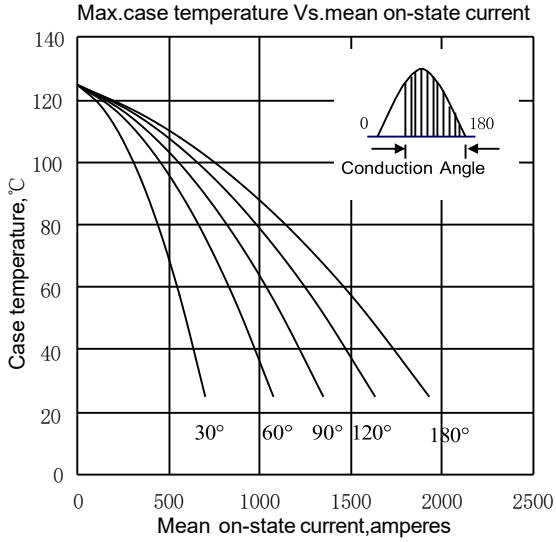


Fig.4

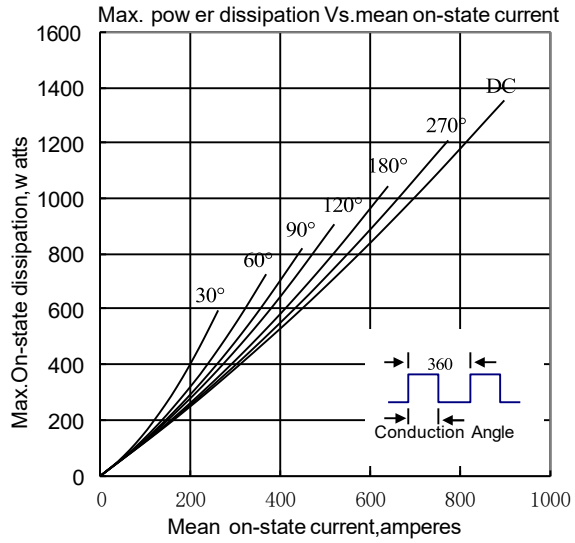


Fig.5

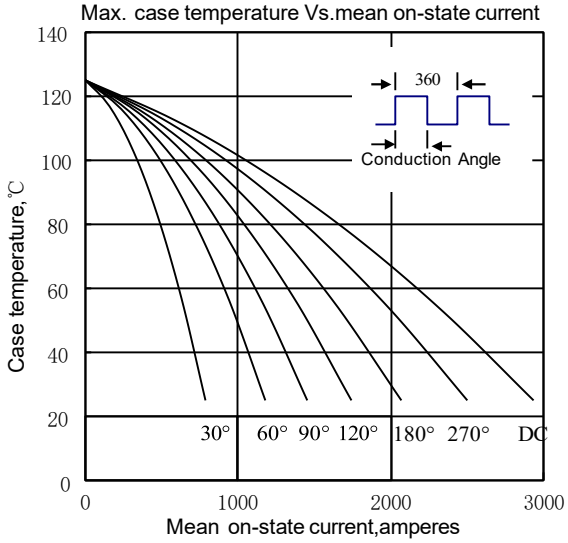


Fig.6

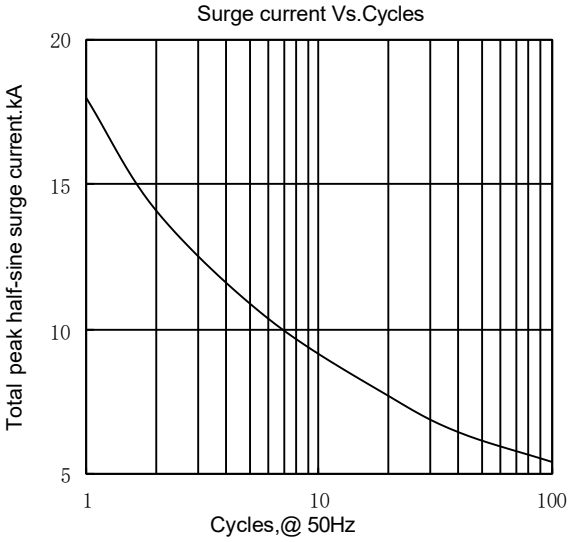


Fig.7

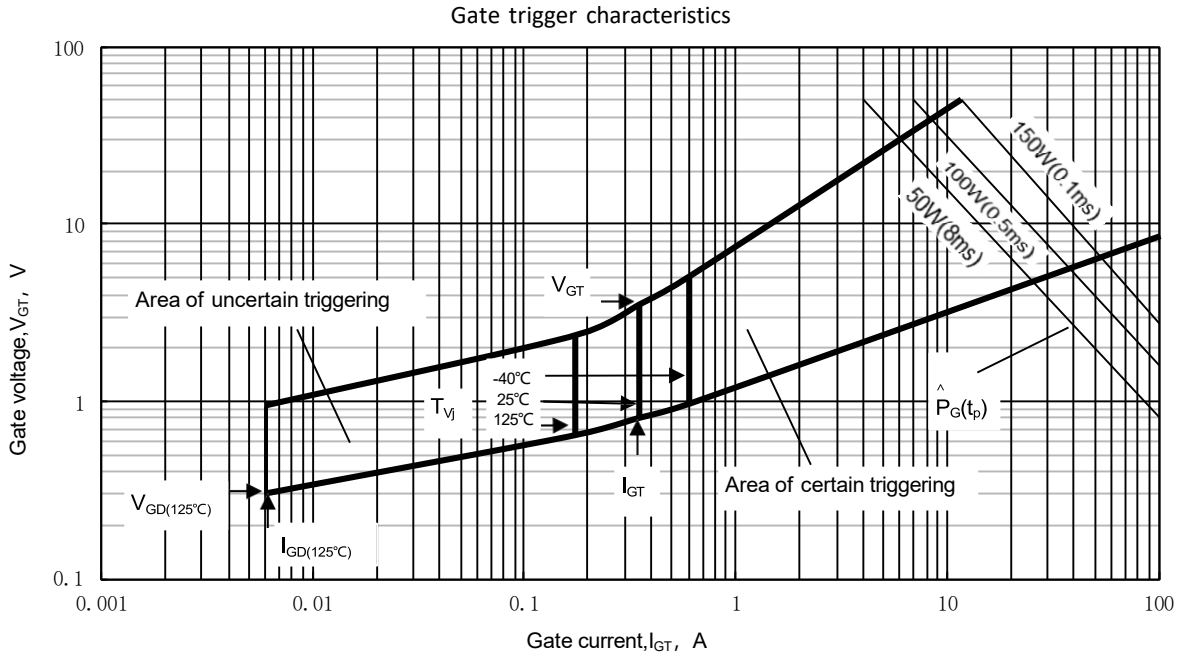
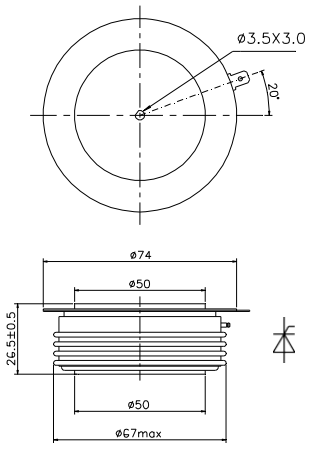


Fig.8

Outline:



NIps reserves the right to change specifications without notice.