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

$I_{T(AV)}$	**1800A**
V_{DRM}/V_{RRM}	**1900 ～ 3000V**
I_{TSM}	**23.6 kA**
I^2t	**2785 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=70°C	125			1800	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	1900		3000	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 V_R=0.6V_{RRM}		125			23.6	kA
I^2t	I^2t for fusing coordination						2785	A^2s*10^3
V_{TO}	Threshold voltage			125			0.98	V
r_T	On-state slope resistance						0.21	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=3000A, F=28kN		25			2.30	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} to2000A, Gate pulse t_r ≤0.5μs I_{GM}=1.5A Repetitive		125			200	A/μs
Q_{rr}	Recovery charge	I_{TM}=1000A, tp=4000μs, di/dt=-20A/μs, V_R=100V		125		1600		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				20		300	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 28.0kN					0.016	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.004	
F_m	Mounting force				21		30	kN
T_{vj}	Junction temperature				-40		125	°C
T_{stg}	Stored temperature				-40		140	°C
W_t	Weight					640		g
Outline	P12							

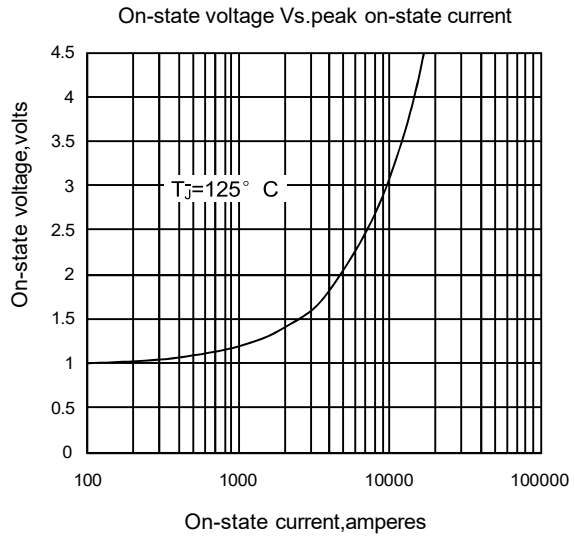


Fig1

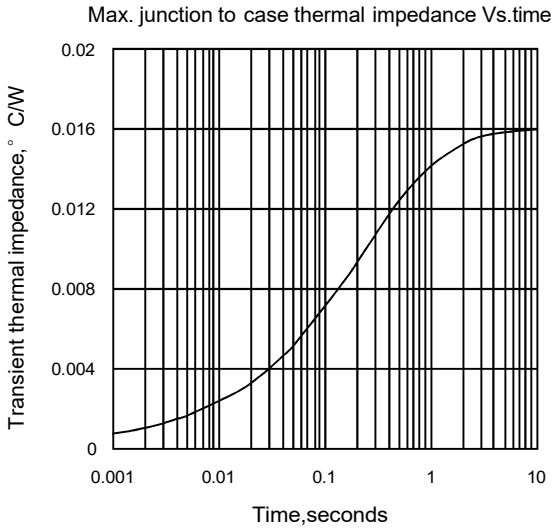


Fig2

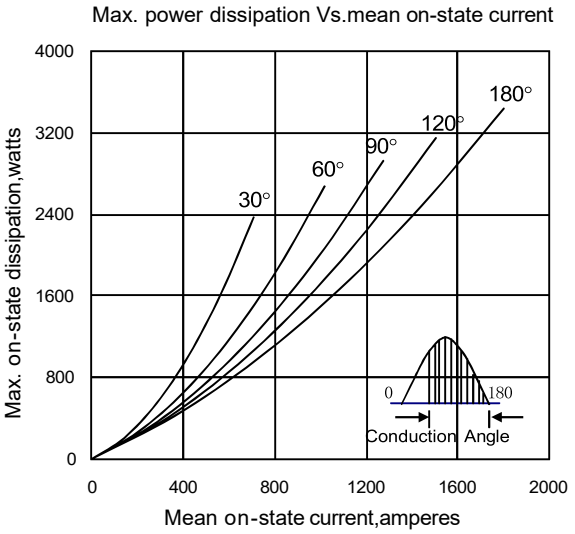


Fig3

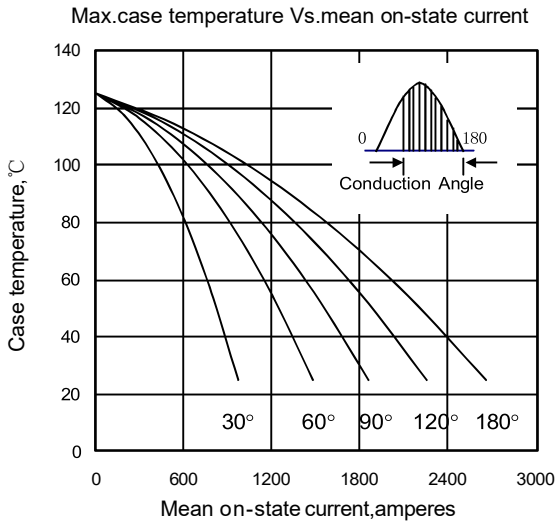


Fig4

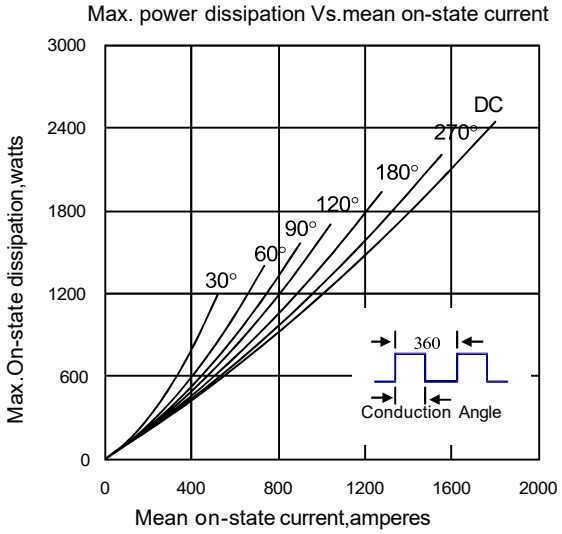


Fig5

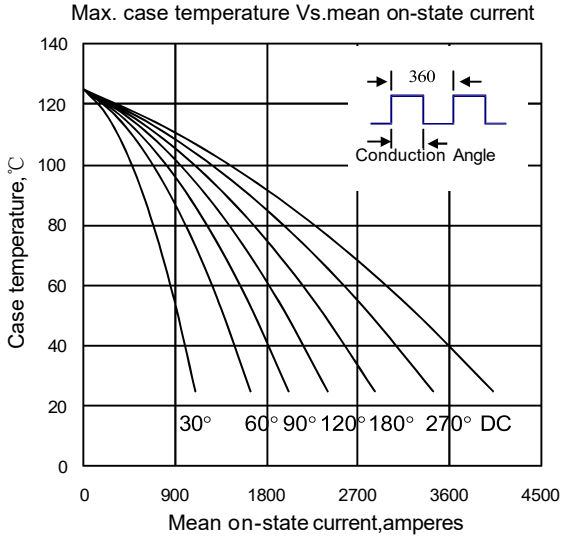


Fig6

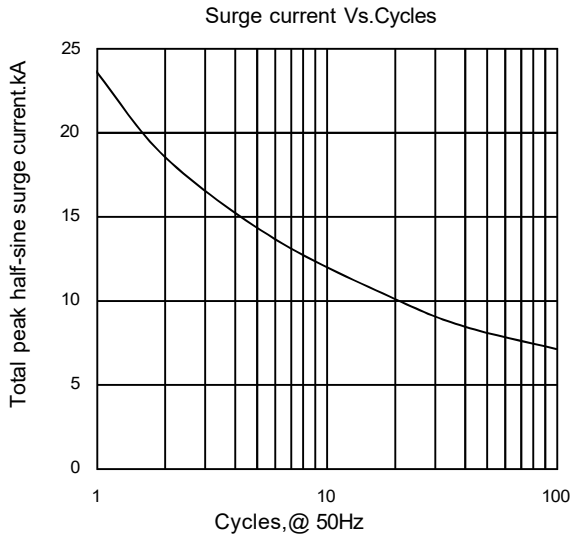


Fig7

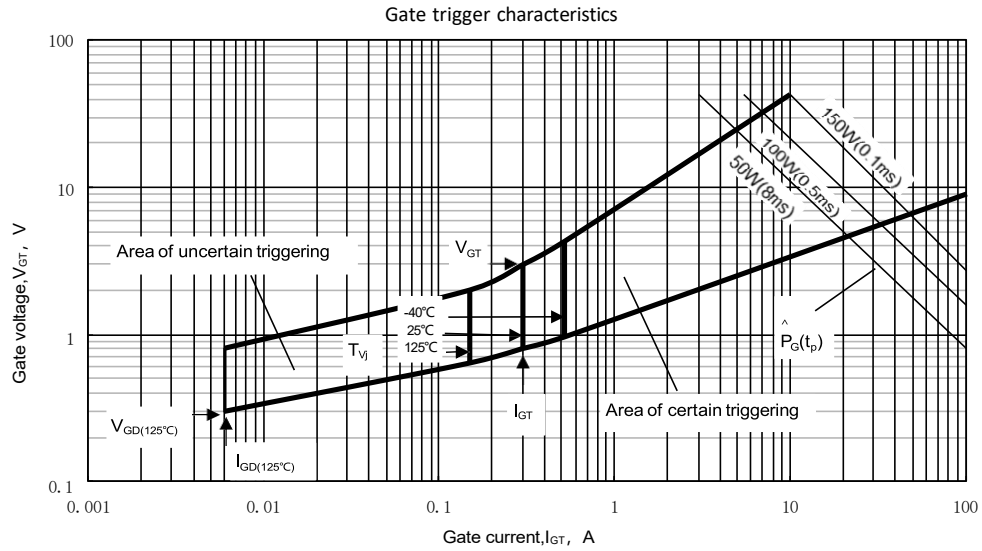
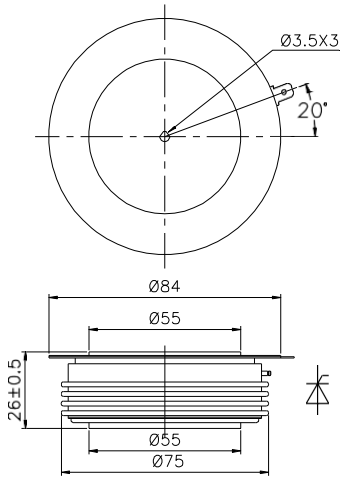


Fig.8

Outline:



NIps reserves the right to change specifications without notice.