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

$I_{T(AV)}$	**730A**
V_{DRM}/V_{RRM}	**1100 ～ 1800V**
I_{TSM}	**9 kA**
I^2t	**405 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			730	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	1100		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave, V_R=0.6V_{RRM}		125			9	kA
I^2t	I^2t for fusing coordination						405	A^2s*10^3
V_{TO}	Threshold voltage			125			0.88	V
r_T	On-state slope resistance						0.65	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1200A, F=15.0kN		25			2.00	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} to 800A, Gate pulse t_r ≤0.5μs I_{GM}=1.5A Repetitive		125			150	A/μs
Q_{rr}	Recovery charge	I_{TM}=1000A, tp=4000μs, di/dt=-20A/μs, V_R=100V		125		1000		μC
I_{GT}	Gate trigger current	V_A=12V, I_A=1A		25	35		250	mA
V_{GT}	Gate trigger voltage				0.8		2.5	V
I_H	Holding current				20		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 heat sink						0.008	
F_m	Mounting force				10		20	kN
T_{vj}	Junction temperature				-40		125	°C
T_{stg}	Stored temperature				-40		140	°C
W_t	Weight					240		g
Outline	P08							

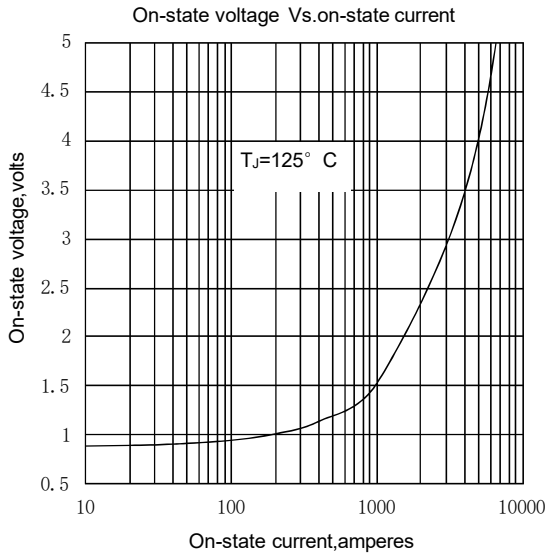


Fig.1

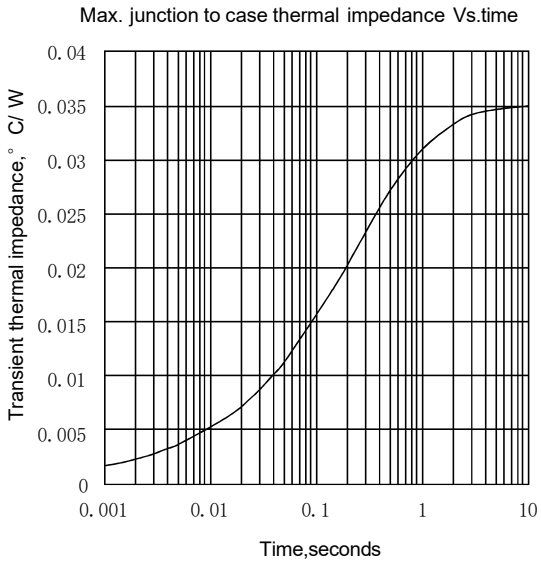


Fig.2

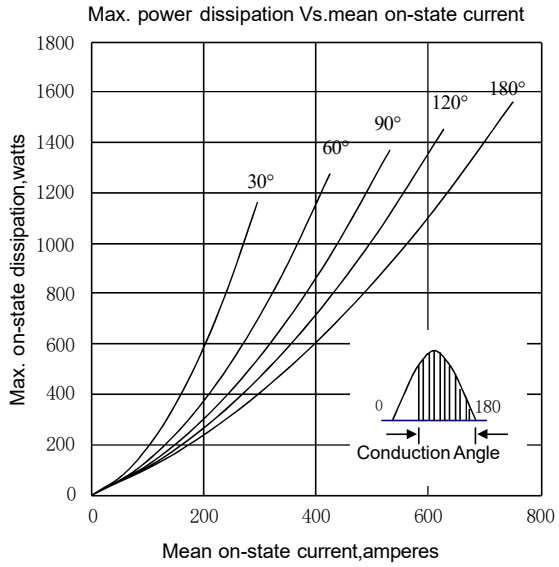


Fig.3

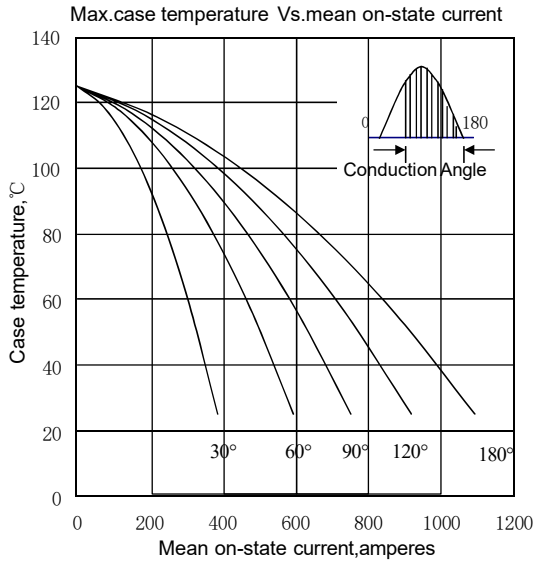


Fig.4

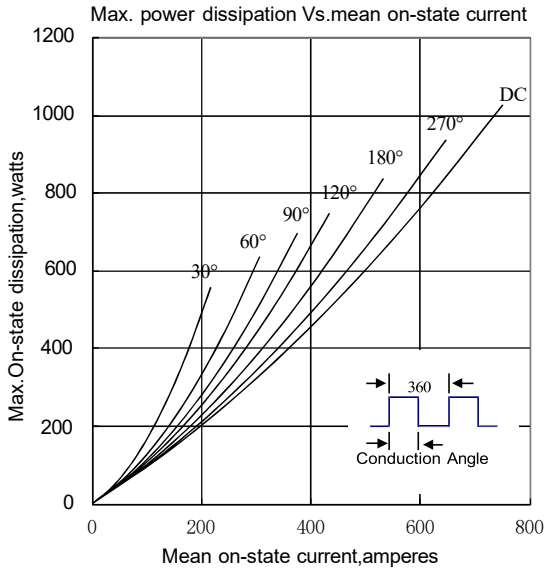


Fig.5

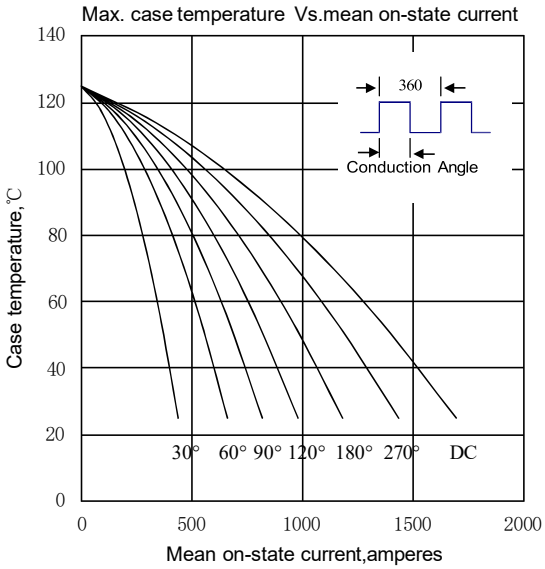


Fig.6

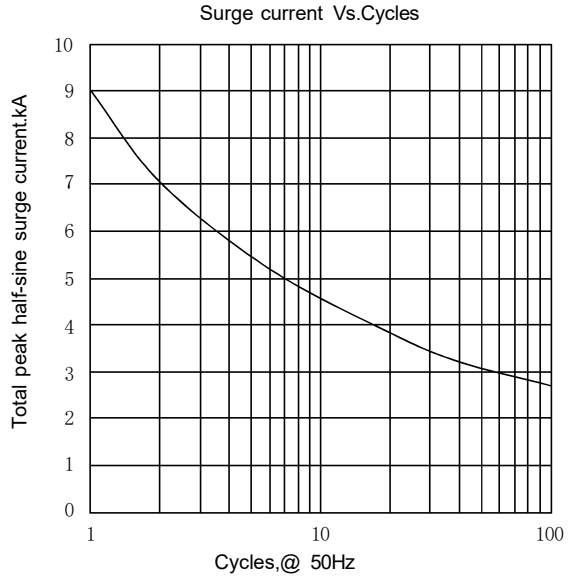


Fig.7

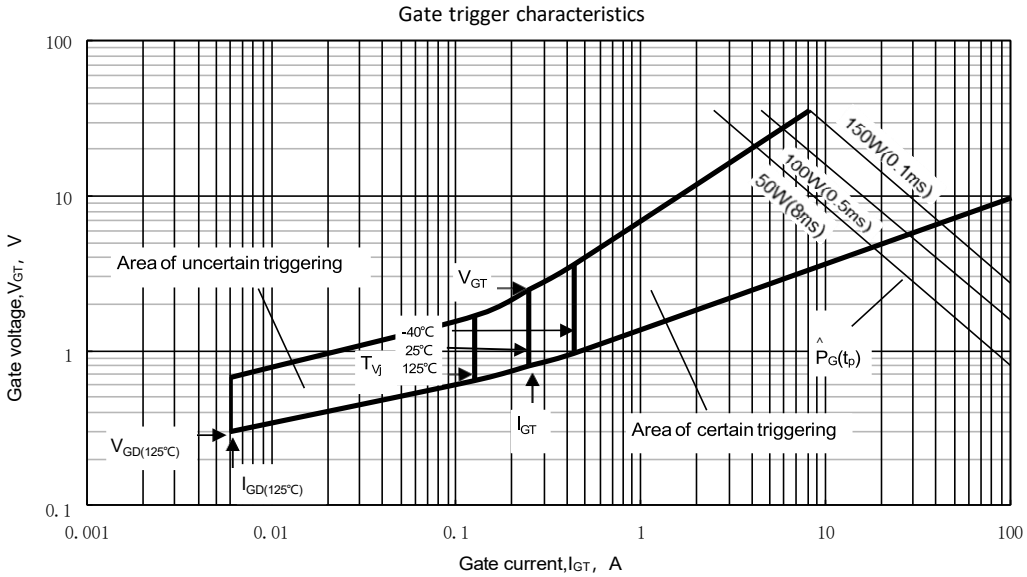
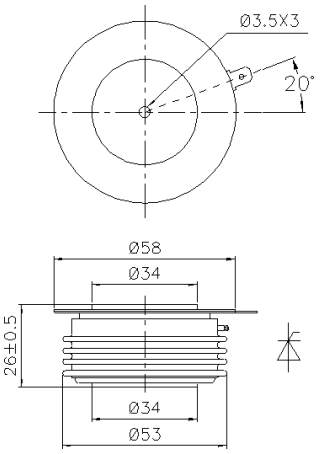


Fig.8

Outline:



NIps reserves the right to change specifications without notice.