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

$I_{T(AV)}$	**300A**
V_{DRM}/V_{RRM}	**7300 ～ 8500V**
I_{TSM}	**4.0 kA**
I^2t	**80 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			300	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	7300		8500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} tp=10ms at V_{RRM} tp=10ms	125			200	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=0.6V_{RRM}	125			4.0	kA
I^2t	I^2t for fusing coordination					80	A^2s*10^3
V_{TO}	Threshold voltage		125			2.02	V
r_T	On-state slope resistance					2.19	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=500A, F=15kN	25			3.00	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}, Gate pulse t_r ≤0.5μs I_{GM}=1.5A	125			100	A/μs
Q_{rr}	Recovery charge	I_{TM}=2000A, tp=4000μs, di/dt=-5A/μs, V_R=100V	125		1500		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		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 force15kN				0.045	°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				300		g
Outline	P23						

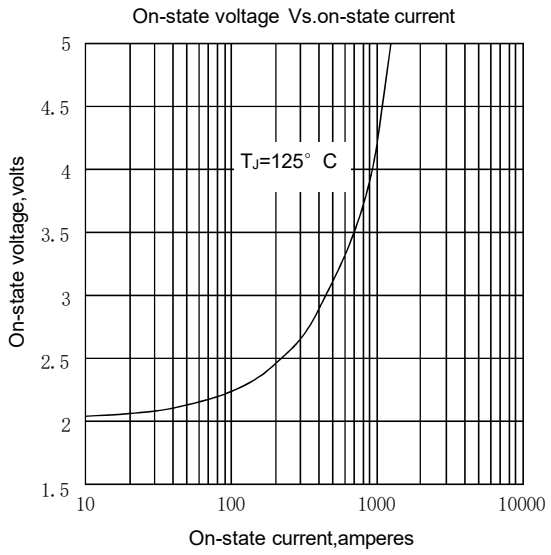


Fig.1

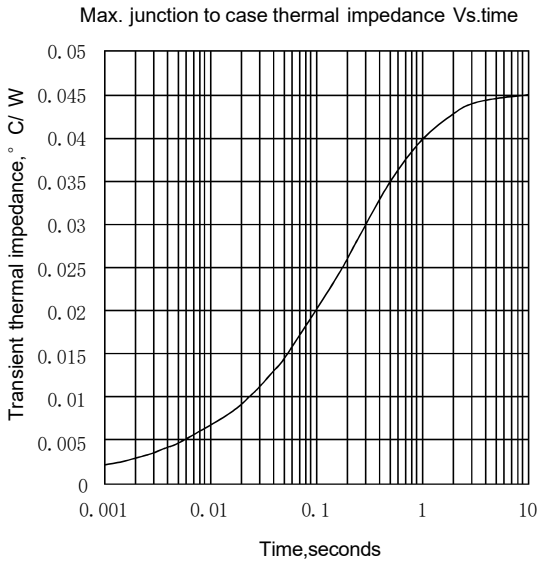


Fig.2

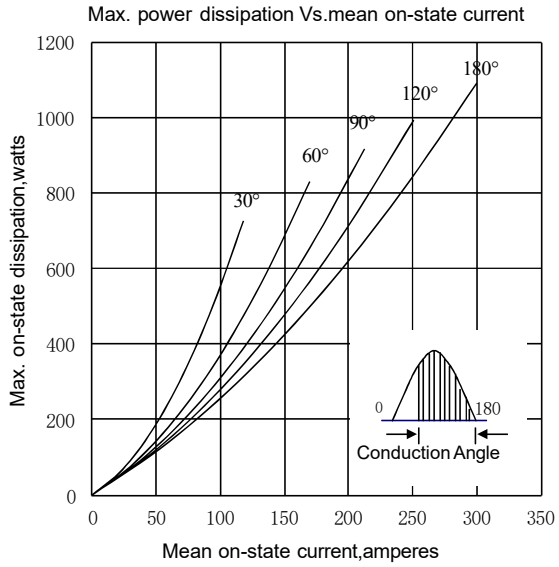


Fig.3

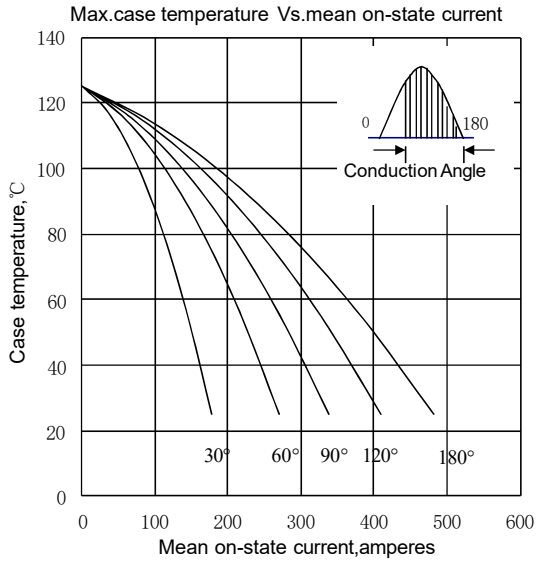


Fig.4

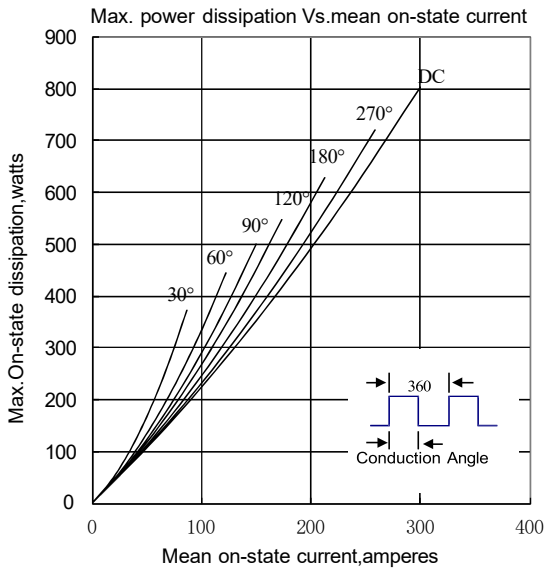


Fig.5

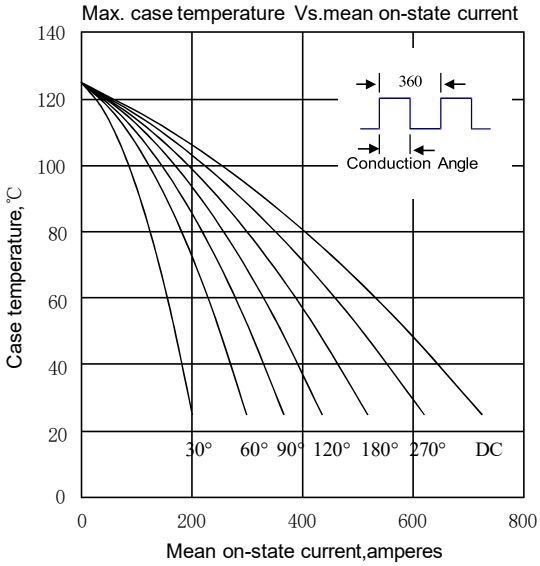


Fig.6

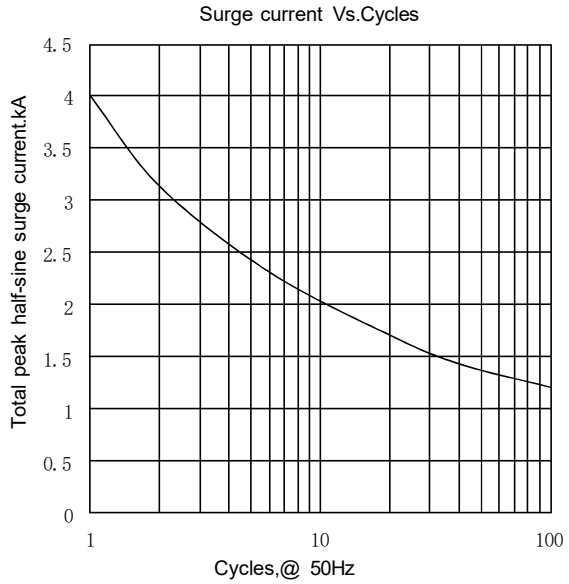


Fig.7

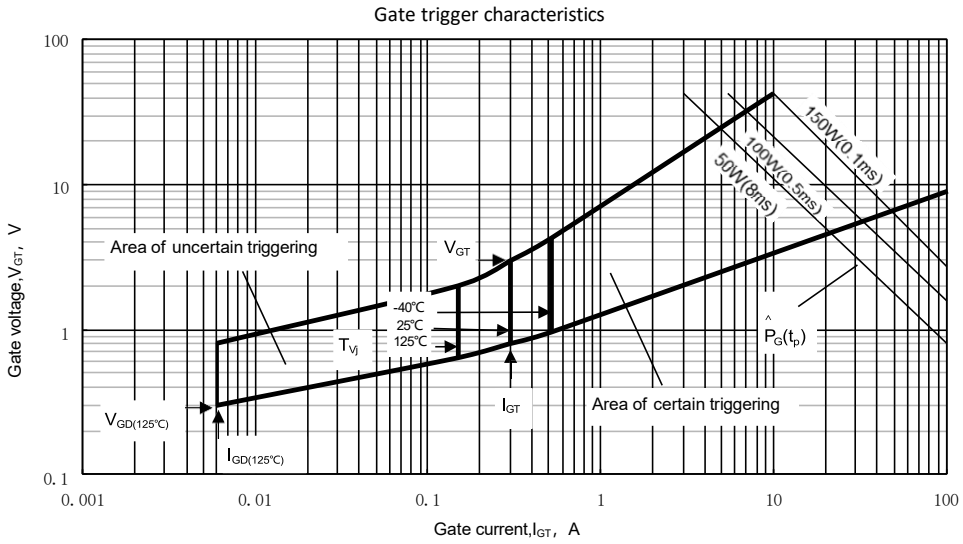
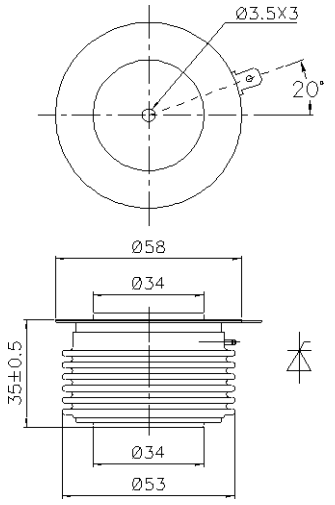


Fig.8

Outline:



NIps reserves the right to change specifications without notice.