Features

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	**2200A**
V_{DRM}/V_{RRM}	**3500 ～ 4800V**
t_q	**50~100μs**
I_{TSM}	**35 kA**
I^2t	**6125 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=55°C	125			2200	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} tp=10ms at V_{RRM} tp=10ms	125			250	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=0.6V_{RRM}	125			35	kA
I^2t	I^2t for fusing coordination					6125	10^3A^2s
V_{TO}	Threshold voltage		125			1.48	V
r_T	On-state slope resistance					0.35	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=2500A, F=70kN	25			2.80	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 (Non-repetitive)	V_{DM}= 67%V_{DRM}, Gate pulse $t_r \leq 0.5\mu s$ I_{GM}=1.5A	125			600	A/μs
Q_{rr}	Recovery charge	I_{TM}=2000A, tp=4000μs, di/dt=-20A/μs, V_R=50V	125		1500		μC
tq	Circuit commutated turn-off time	I_{TM}=2000A , tp=4000μs, V_R=50V dv/dt=30V/μs ,di/dt=-20A/μs	100	50		100	μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	40		250	mA
V_{GT}	Gate trigger voltage			0.9		2.5	V
I_H	Holding current			20		1000	mA
I_L	Latching current					1500	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 70kN				0.009	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink					0.002	
F_m	Mounting force			63		84	kN
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		130	°C
W_t	Weight				1390		g
Outline	P19						

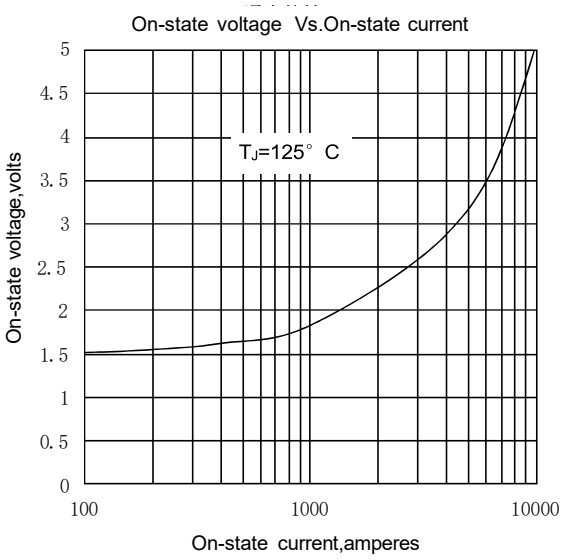


Fig.1

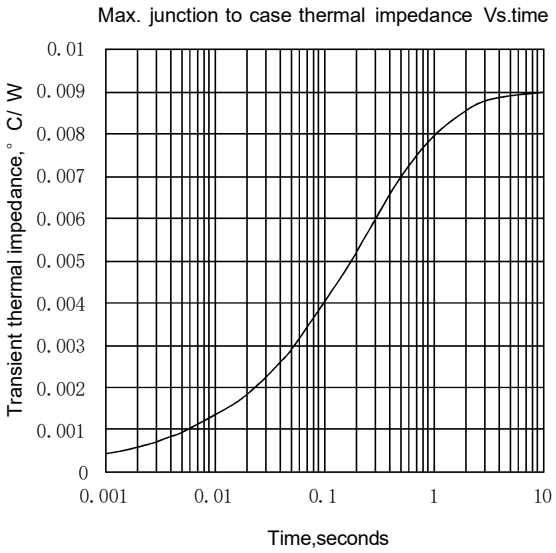


Fig.2

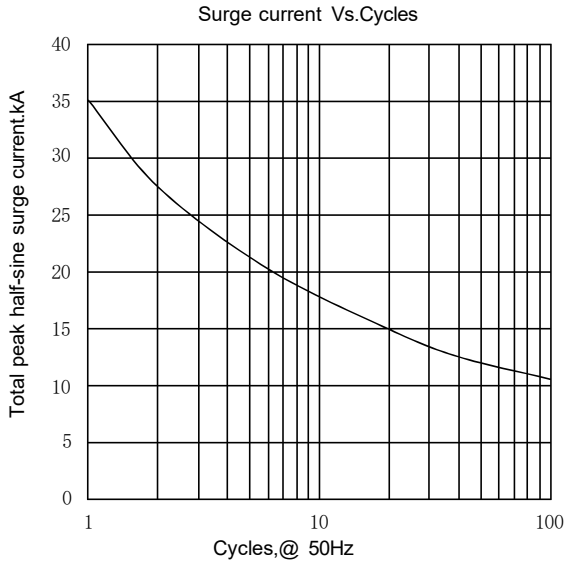


Fig.3

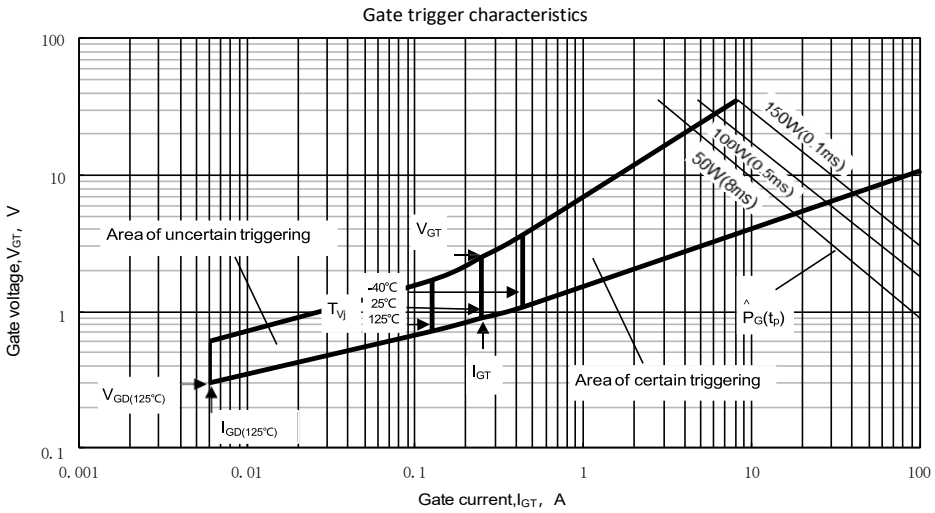
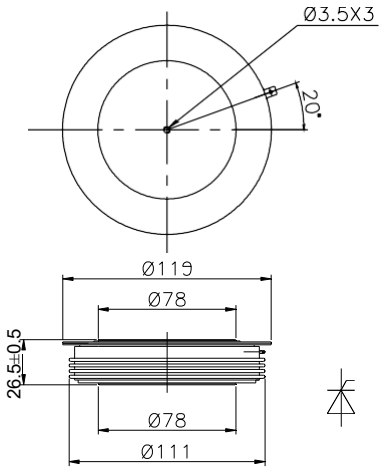


Fig.4

Outline:



NIps reserves the right to change specifications without notice.