Features

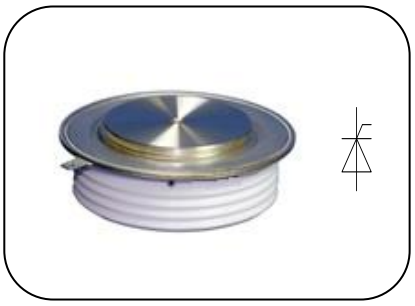
- Excellent dynamic characteristics
- Fast turn-on and high di/dt
- Low switching losses

Typical Applications

- Design for inverter supply application

品名： **FH1200TN**

$I_{T(AV)}$	**1200A**
V_{DRM}	**2000V~3000V**
V_{RRM}	**1000V~2500V**
t_q	**20~75μs**



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			1200	A
			T_C=70°C	125			1000	A
V_{DRM}	Repetitive peak off-state voltage	tp=10ms		125	2000		3000	V
V_{RRM}	Repetitive peak reverse voltage				1000		2500	
I_{DRM}/I_{RRM}	Repetitive peak current	at V_{DRM}/V_{RRM}		125			80	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=0.6V_{RRM}		125			16	kA
I^2t	I^2t for fusing coordination						1280	10^3A^2s
V_{TO}	Threshold voltage			125			1.55	V
r_T	On-state slope resistance						0.40	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=3000A, F=24kN	20≤tq≤35	25			2.80	V
			36≤tq≤60				2.60	V
			61≤tq≤75				2.40	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} to 1600A, Gate pulse t_r ≤0.5μs I_{GM}=1.5A		125			1500	A/μs
Q_{rr}	Recovery charge	I_{TM}=1000A ,tp=4000μs, di/dt=-20A/μs, V_R=100V		125		750		μC
tq	Circuit commutated turn-off time	I_{TM}=1000A ,tp=4000μs, V_R=100V dv/dt=30V/μs ,di/dt=-20A/μs		100	20		75	μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A		25	40		300	mA
V_{GT}	Gate trigger voltage				0.9		3.0	V
I_H	Holding current				20		500	mA
I_L	Latching current						500	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	DC double side cooled Clamping force 24kN					0.020	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.005	
F_m	Mounting force				19		26	kN
T_{vj}	Junction temperature				-40		125	°C
T_{stg}	Stored temperature				-40		140	°C
W_t	Weight					440		g
Outline	P11							

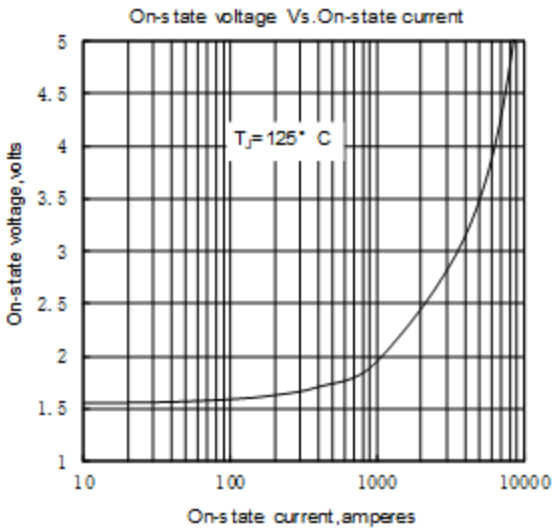


Fig. 1

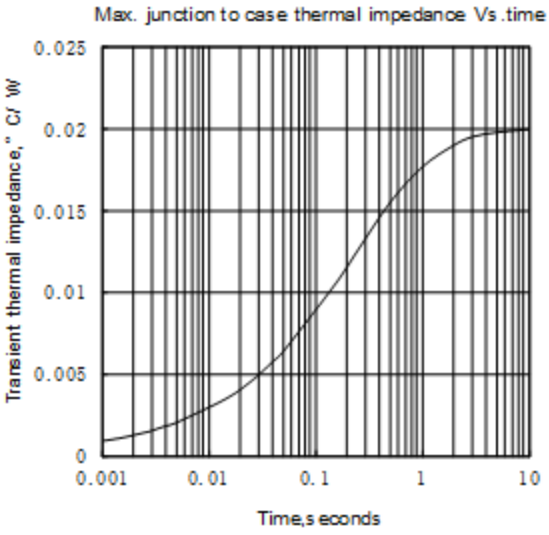


Fig.2

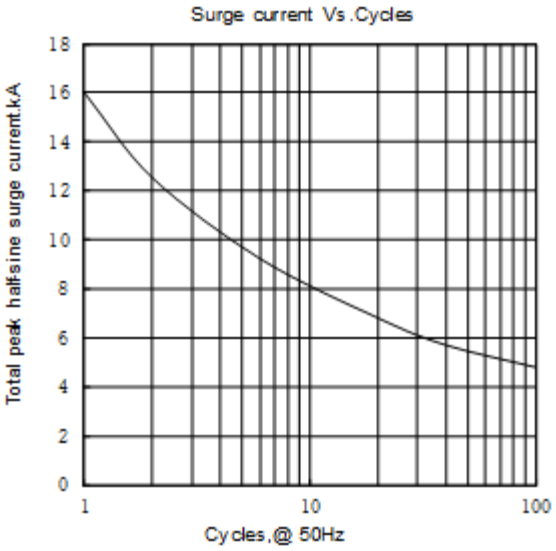


Fig. 3

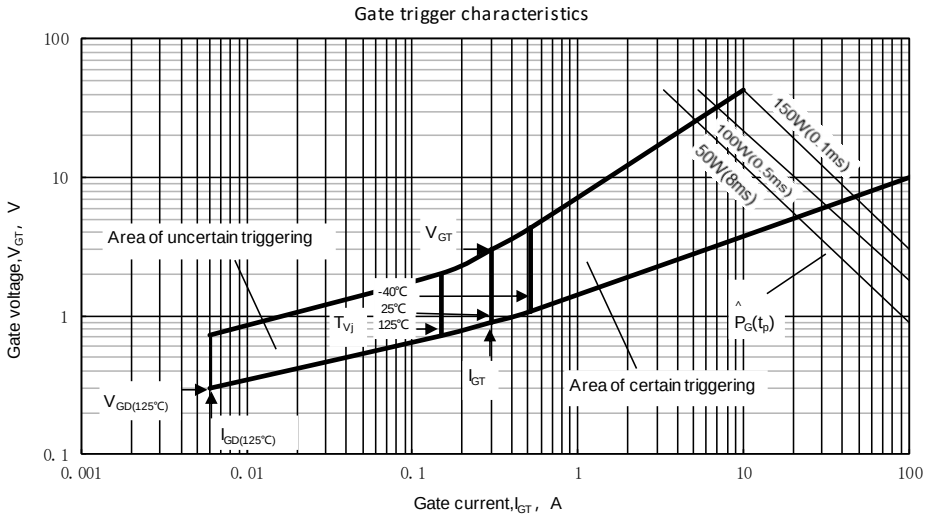
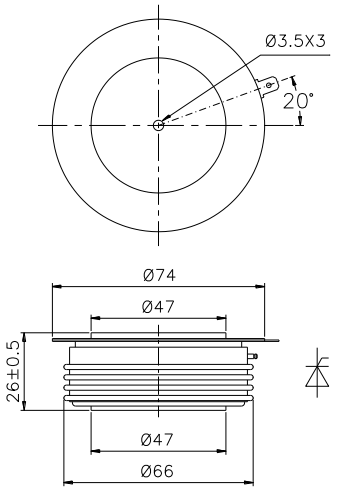


Fig. 4



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NIps reserves the right to change specifications without notice.