

Features

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

Typical Applications

- Design for inverter supply application

品名 : FH2900TN**	
$I_{T(AV)}$	2900A
V_{DRM}	2000~3000V
V_{RRM}	1000~2500V
t_q	20-75 μ s

SYMBOL	CHARACTERISTIC	TEST CONDITIONS		$T_j(^{\circ}C)$	VALUE			UNIT
					Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled	$T_C=55^{\circ}C$	125			2900	A
V_{DRM}	Repetitive peak off-state voltage	$t_p=10ms$		125	2000		3000	V
V_{RRM}	Repetitive peak reverse voltage				1000		2500	
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			200	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			30	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$						4500
V_{TO}	Threshold voltage			125			1.27	V
r_T	On-state slope resistance						0.15	$m\Omega$
V_{TM}	Peak on-state voltage	$I_{TM}=5000A, F=40kN$		25			2.80	V
							2.60	V
							2.40	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			1000	V/ μ s
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			1500	A/ μ s
Q_{rr}	Recovery charge	$I_{TM}=2000A, t_p=4000\mu s$, $di/dt=-20A/\mu s, V_R=100V$		125		1300		μC
t_q	Circuit commutated turn-off time	$I_{TM}=2000A, t_p=4000\mu s, V_R=100V$ $dv/dt=30V/\mu s, di/dt=-20A/\mu s$		125	20		75	μs
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$		25	40		250	mA
V_{GT}	Gate trigger voltage				0.9		3.0	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 40kN					0.010	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.003	
F_m	Mounting force				35		47	kN
T_{vj}	Junction temperature				-40		125	$^{\circ}C$
T_{stg}	Stored temperature				-40		140	$^{\circ}C$
W_t	Weight					1100		g
Outline	P17							

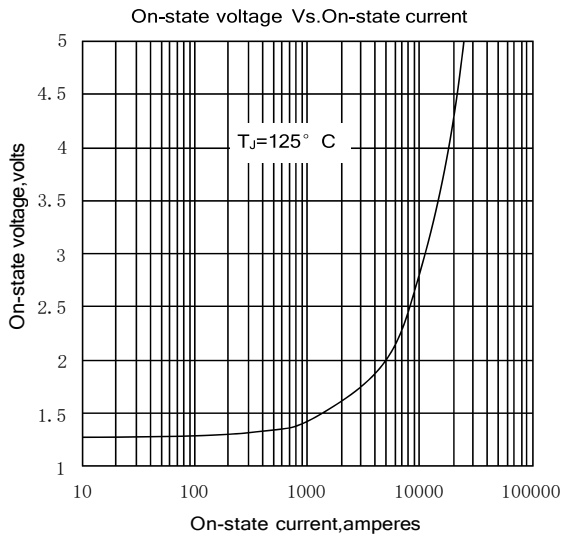


Fig.1

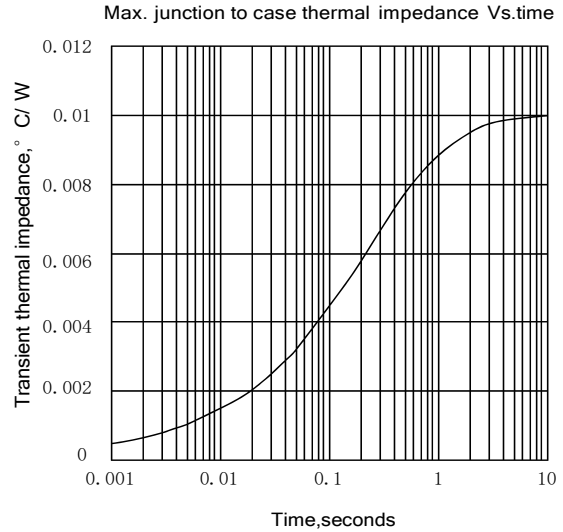


Fig.2

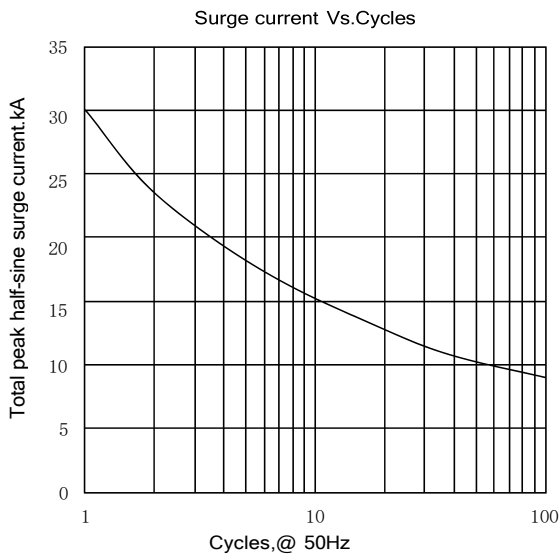


Fig.3

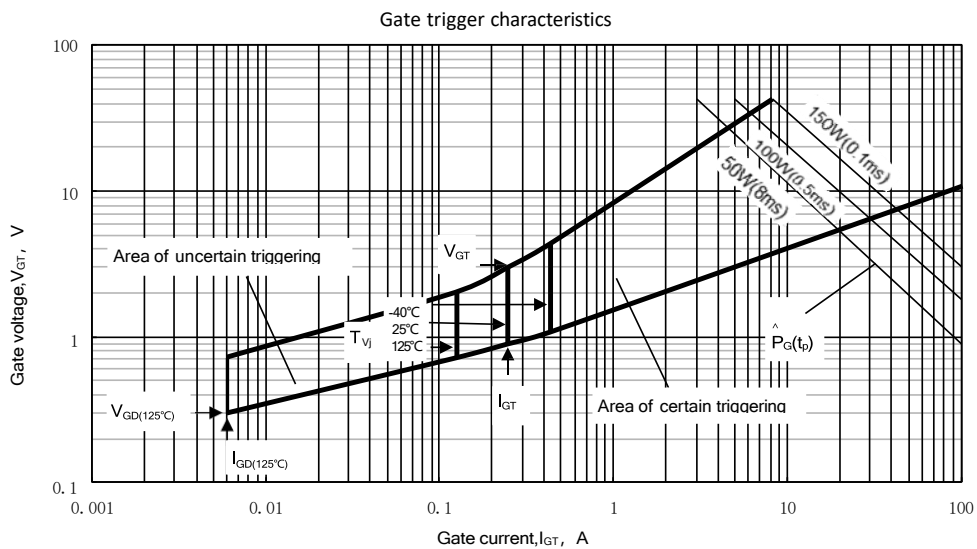
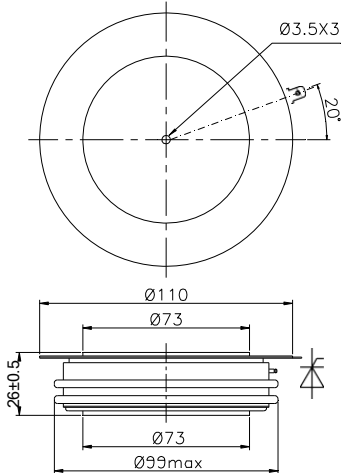


Fig.4

Outline:



Nlps reserves the right to change specifications without notice.