

Features :

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses
- Short turn-off time
- Hermetic metal cases with ceramic insulators

$I_{T(AV)}$	1730A
V_{DRM}/V_{RRM}	800 ~ 1200V
t_q	10 ~ 20μs
I_{TSM}	17.0 kA

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters
- AC motor speed control
- General power switching applications

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			1730	A	
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10ms$	125	800		1200	V	
I_{DRM} I_{RRM}	Repetitive peak off-state current Repetitive peak reverse current	at V_{DRM} at V_{RRM}	125			100	mA	
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125			17	kA	
I^2t	I^2t for fusing coordination					1445	$A^2s \cdot 10^3$	
V_{TO}	Threshold voltage		125			1.27	V	
r_T	On-state slope resistance					0.23	mΩ	
V_{TM}	Peak on-state voltage	$I_{TM}=3000A, F=26kN$	25			3.20	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 3000A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$	125			1500	A/μs	
Q_{rr}	Recovery charge	$I_{TM}=1000A, t_p=4000\mu s,$ $di/dt=-20A/\mu s, V_R=100V$	125		90	110	μC	
t_q	Circuit commutated turn-off time	$I_{TM}=1000A, t_p=4000\mu s, V_R=100V$ $dv/dt=30V/\mu s, di/dt=-20A/\mu s$	125	10		20	μs	
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$	25			30	mA	
V_{GT}	Gate trigger voltage					0.8	3.0	V
I_H	Holding current					20	400	mA
I_L	Latching current						1000	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 26kN				0.018	°C/W	
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.004		
F_m	Mounting force			21		30	kN	
T_{vj}	Junction temperature			-40		125	°C	
T_{stg}	Stored temperature			-40		140	°C	
W_t	Weight					620	g	
Outline	P12a							

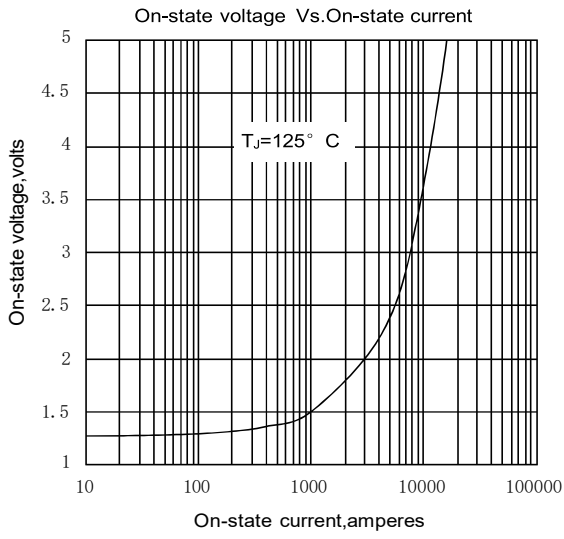


Fig. 1

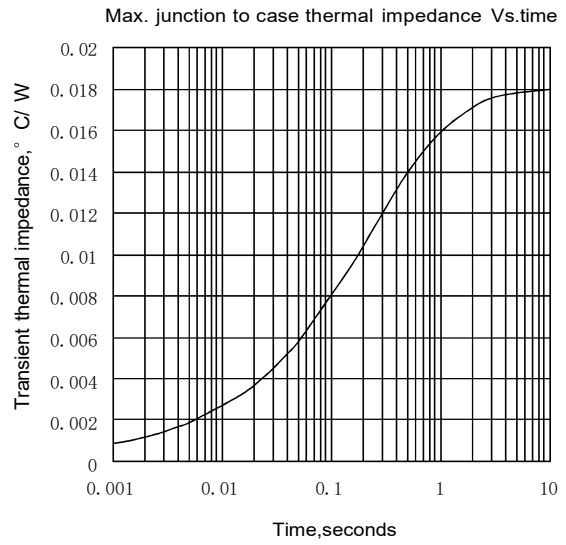


Fig. 2

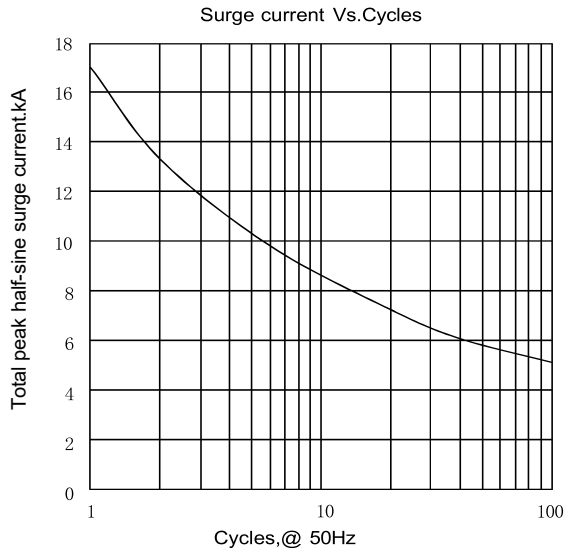


Fig. 3

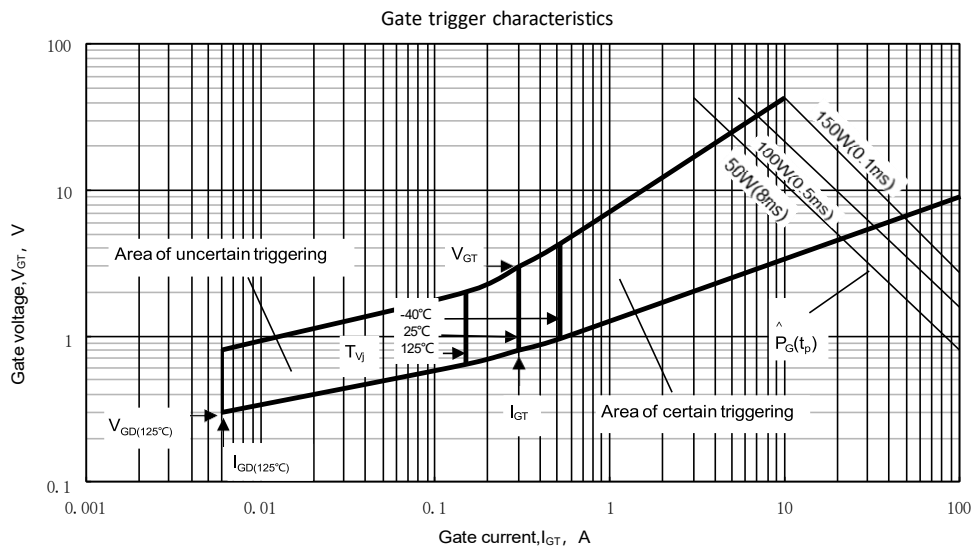
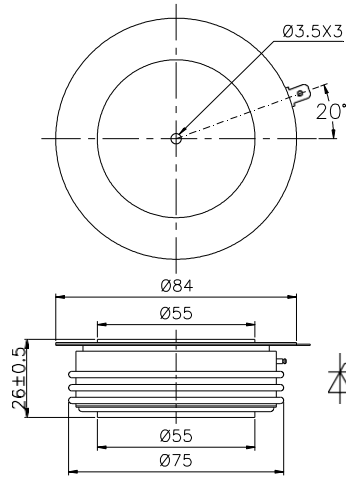


Fig. 4

Outline:



Nlps reserves the right to change specifications without notice.