

Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	1100A
V_{DRM}/V_{RRM}	2000 ~ 2500V
t_q	20~75μs
I_{TSM}	16 kA
I^2t	1280 10³A²s

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			1100	A
V_{DRM}/V_{RRM}	Repetitive peak off-state voltage	tp=10ms	125	2000		2500	V
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 ² t for fusing coordination					1280	10 ³ A ² s
V_{TO}	Threshold voltage		125			1.60	V
r_T	On-state slope resistance					0.45	mΩ
V_{TM}	Peak on-state voltage	I _{TM} =3000A, F=24kN	25			3.15	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 Single pulse	125			1500	A/μs
Q _{rr}	Recovery charge	I _{TM} =1000A ,tp=4000μs, di/dt=-20A/μs, V _R =100V	125		750		μC
t _q	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	D.C. 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						

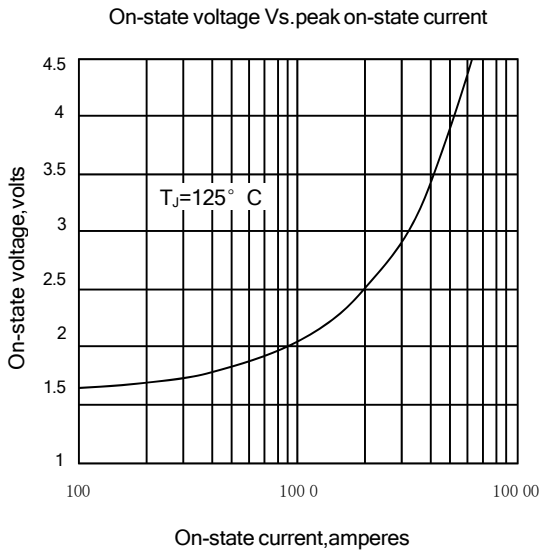


Fig1

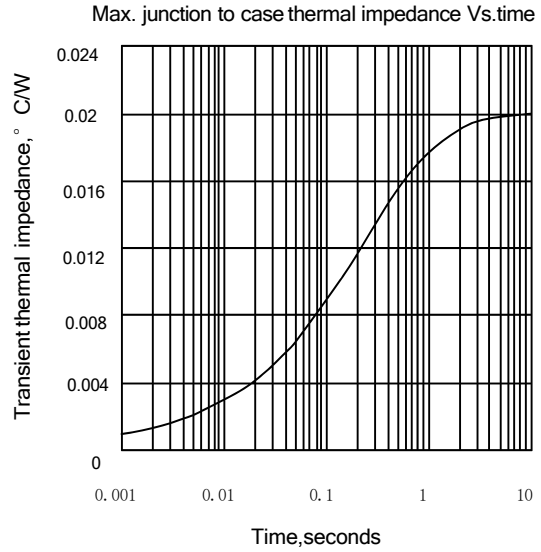


Fig2

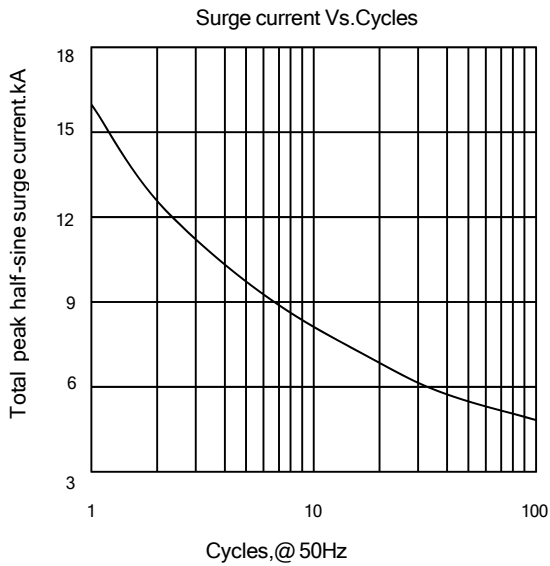


Fig3

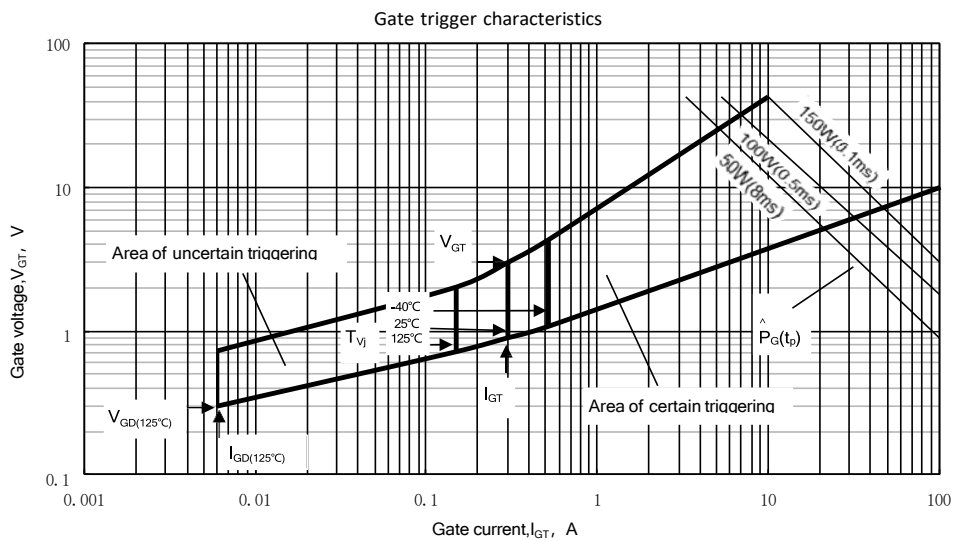
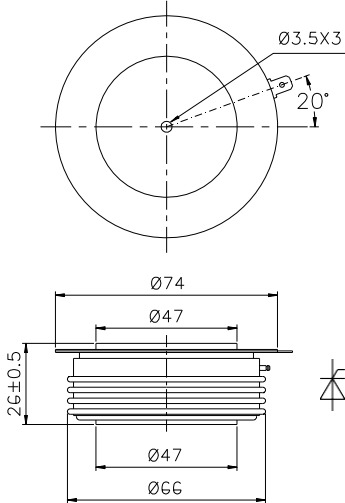


Fig. 4

Outline:



Nlps reserves the right to change specifications without notice.