

Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	1500A
V_{DRM}/V_{RRM}	2000 ~ 2500V
t_q	25~70μs
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		1500	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} at V_{RRM}		125		120	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125		16	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$		125		1280	10 ³ A ² s
V_{TO}	Threshold voltage			125		1.80	V
r_T	On-state slope resistance			125		0.25	m Ω
V_{TM}	Peak on-state voltage	$I_{TM}=3000A, F=28kN$		25		2.80	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	$V_{DM}=67\%V_{DRM}$ Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$		125		1200	A/ μ s
Q_{rr}	Recovery charge	$I_{TM}=1000A, tp=4000\mu s,$ $di/dt=-20A/\mu s, V_R=100V$		125		600	μC
t_q	Circuit commutated turn-off time	$I_{TM}=1000A, tp=4000\mu s, V_R=100V$ $dv/dt=30V/\mu s, di/dt=-20A/\mu s$		125	25	70	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	500	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 28.0kN				0.016	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.004	
F_m	Mounting force				27	34	kN
T_{vj}	Junction temperature				-40	125	°C
T_{stg}	Stored temperature				-40	140	°C
W_t	Weight					640	g
Outline	P12a						

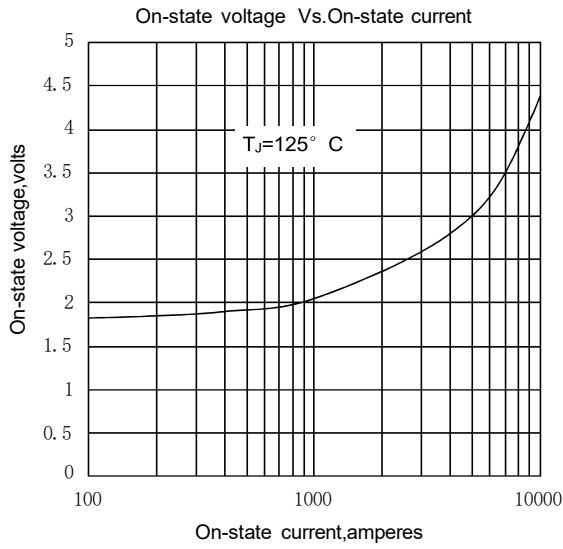


Fig.1

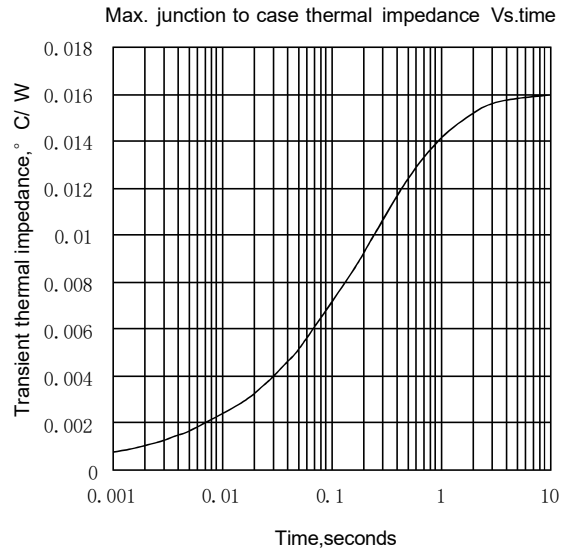


Fig.2

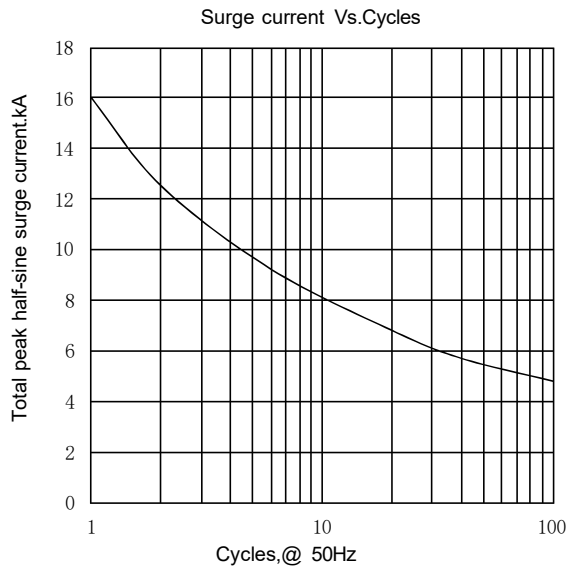


Fig.3

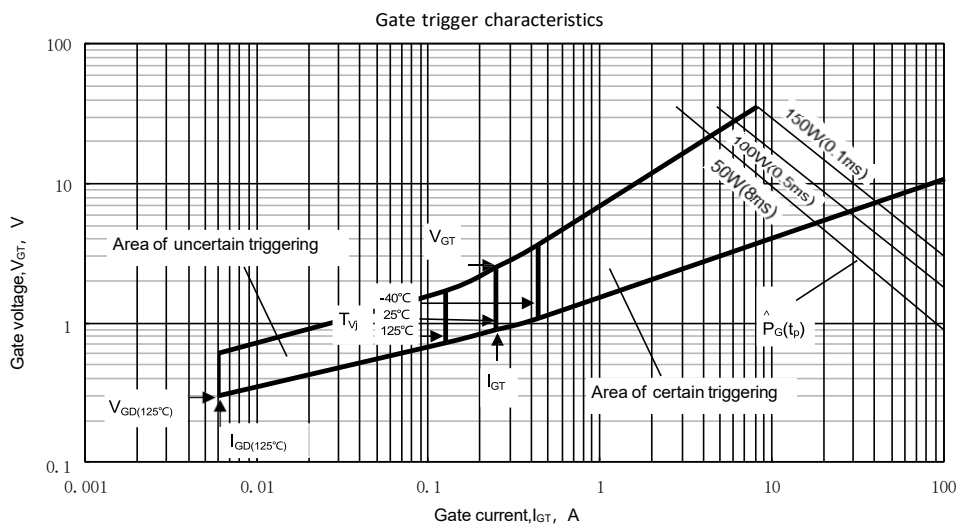
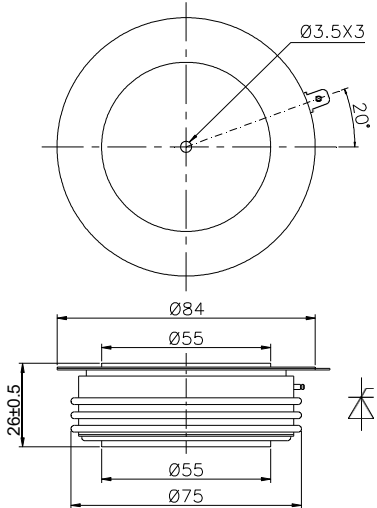


Fig.4

Outline:



Nlps reserves the right to change specifications without notice.