

Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	1250A
V_{DRM}/V_{RRM}	3100~4100V
t_q	40~80μs
I_{TSM}	13 kA
I^2t	845 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			1250	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	3100		4100	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			100	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			13	kA
I^2t	I^2t for fusing coordination						845	A ² s*10 ³
V_{TO}	Threshold voltage			125			2.70	V
r_T	On-state slope resistance						0.26	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1500A, F=24kN$		125			3.09	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			500	V/ μ s
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			800	A/ μ s
Q_{rr}	Recovery charge	$I_{TM}=1000A, tp=2000\mu s,$ $di/dt=-60A/\mu s, V_R=50V$		125		2200		μC
t_q	Circuit commutated turn-off time	$I_{TM}=1000A, tp=1000\mu s, V_R=50V$ $dv/dt=30V/\mu s, di/dt=-60A/\mu s$		125	40		80	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		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	DC: double side cooled Clamping force 24kN					0.016	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.005	
F_m	Mounting force				19		26	kN
T_{stg}	Stored temperature				-40		140	°C
W_t	Weight					440		g
Outline	P11							

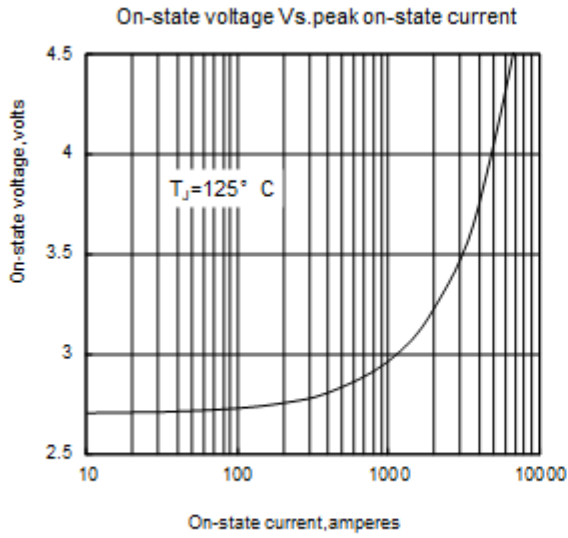


Fig1

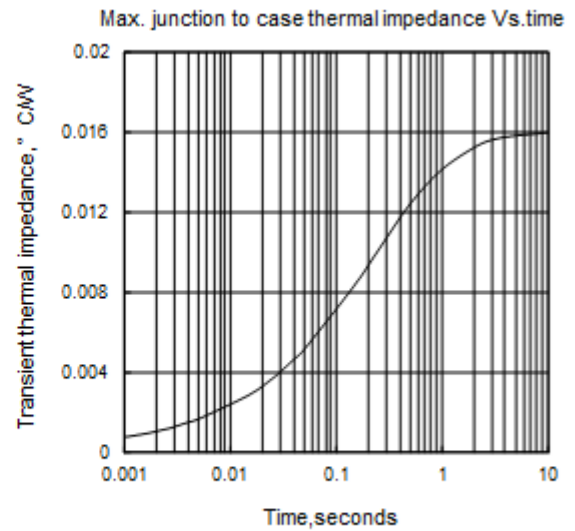


Fig2

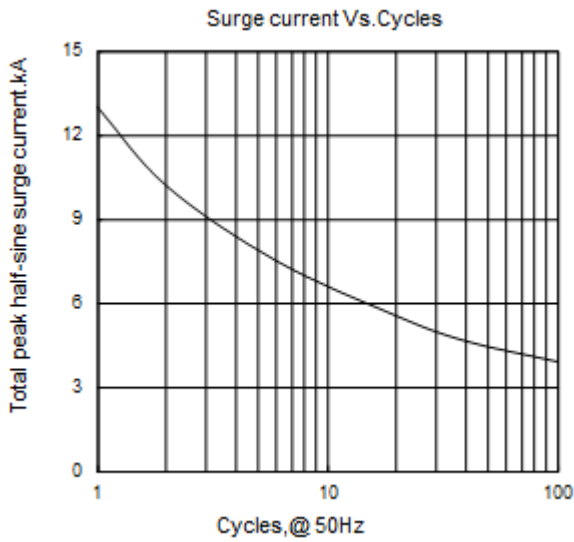


Fig3

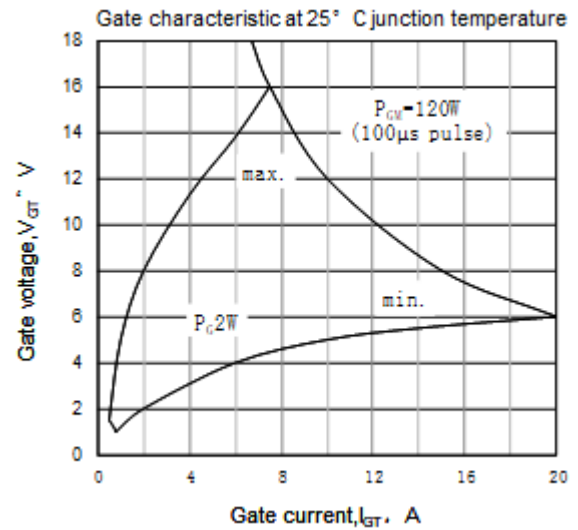


Fig4

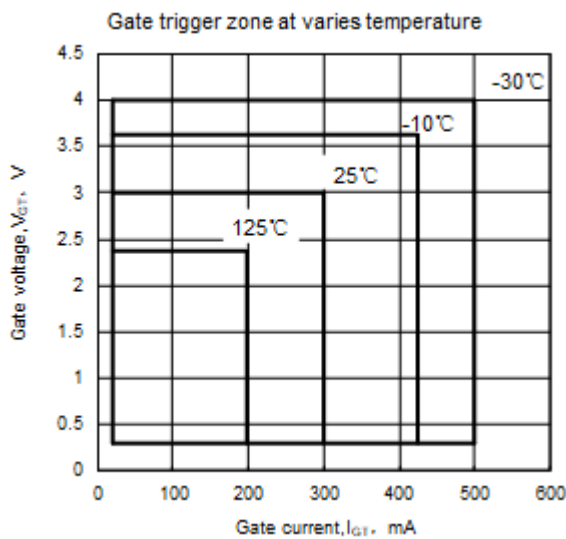
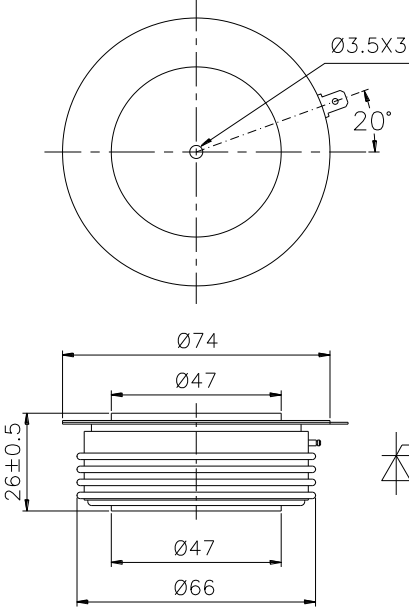


Fig5



Nlps reserves the right to change specifications without notice.