

Features :

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

$I_{T(AV)}$	1430A
V_{DRM}/V_{RRM}	800~1200V
t_q	10~20μs
I_{TSM}	15 kA

**Typical Applications**

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}\text{C})$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, $T_C=55^{\circ}\text{C}$	125			1430	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10\text{ms}$	125	800		1200	V
I_{DRM} I_{RRM}	Repetitive peak off state current Repetitive peak reverse current	at V_{DRM} at V_{RRM}	125			80	mA
$I_{T/f}$	High frequency on-state current	$F=10\text{KHz}, T_C=55^{\circ}\text{C}$				600	A
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125			15	kA
I^2t	I^2t for fusing coordination					1125	$\text{A}^2\text{s} \cdot 10^3$
V_{TO}	Threshold voltage		125			1.32	V
r_T	On-state slope resistance					0.32	$\text{m}\Omega$
V_{TM}	Peak on-state voltage	$I_{TM}=2000\text{A}, F=24\text{kN}$	125			1.96	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			200	$\text{V}/\mu\text{s}$
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$, to2000A Gate pulse $t_r \leq 0.5\mu\text{s}$, $I_{GM}=1.5\text{A}$	125			1500	$\text{A}/\mu\text{s}$
Q_{rr}	Recovery charge	$I_{TM}=1000\text{A}, t_p=2000\mu\text{s}$, $di/dt=-60\text{A}/\mu\text{s}, V_R=50\text{V}$	125		77		μC
t_q	Circuit commutated turn-off time	$I_{TM}=1000\text{A}, t_p=2000\mu\text{s}$, $V_R=50\text{V}$ $dv/dt=30\text{V}/\mu\text{s}$, $di/dt=-60\text{A}/\mu\text{s}$	125	10		20	μs
I_{GT}	Gate trigger current	$V_A=12\text{V}, I_A=1\text{A}$	25	30		300	mA
V_{GT}	Gate trigger voltage			0.8		3.0	V
I_H	Holding current			20		400	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				0.020	$^{\circ}\text{C}/\text{W}$
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.005	
F_m	Mounting force			19		26	kN
T_{stg}	Stored temperature			-40		140	$^{\circ}\text{C}$
W_t	Weight					440	g
Outline	P11						

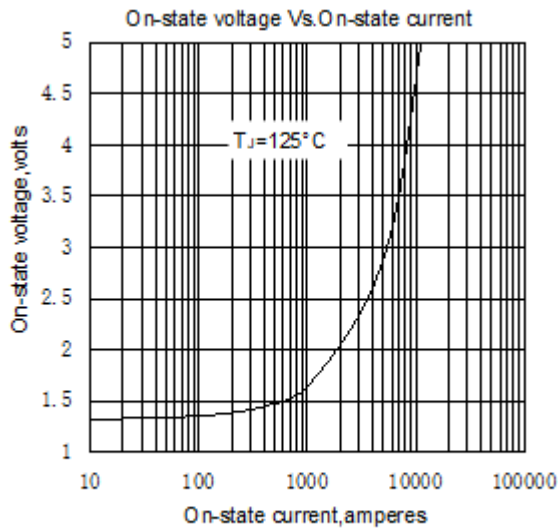


Fig. 1

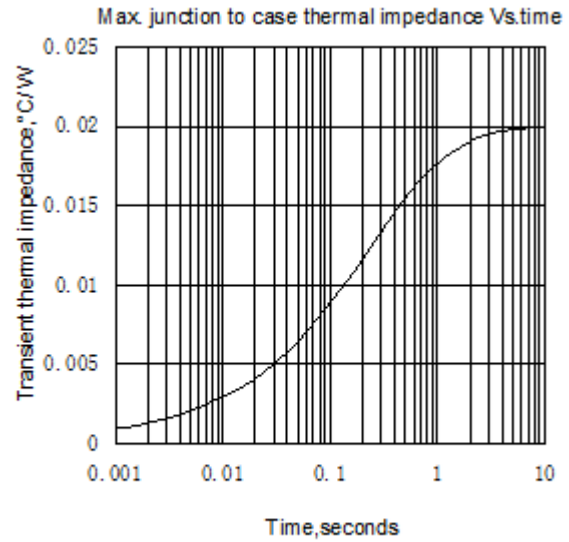


Fig. 2

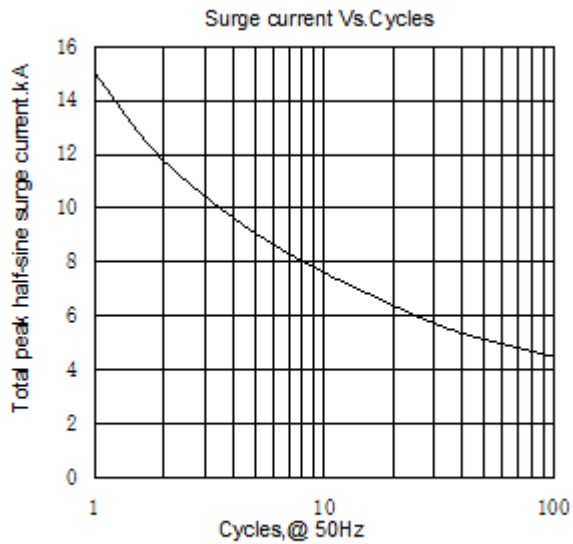


Fig. 3

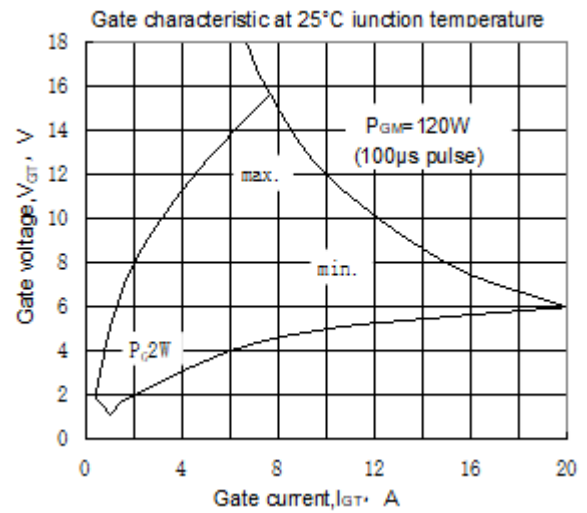


Fig. 4

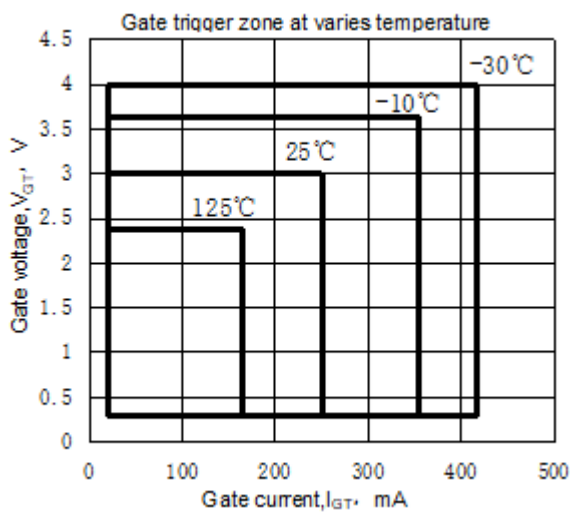
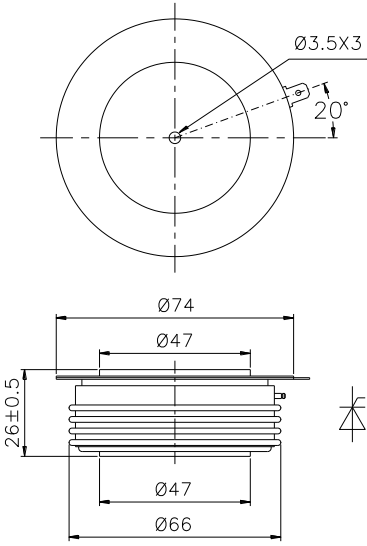


Fig. 5



Nlps reserves the right to change specifications without notice.