

**Features :**

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

$I_{T(AV)}$	<b>1210A</b>
$V_{DRM}/V_{RRM}$	<b>600~900V</b>
$t_q$	<b>6~15<math>\mu</math>s</b>
$I_{TSM}$	<b>9.6kA</b>

**Typical Applications**

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_f(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, $T_c=55^{\circ}C$	125			1210	A
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10ms$	125	600		900	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak off-state current Repetitive peak reverse current	at $V_{DRM}$ at $V_{RRM}$	125			60	mA
$I_{T(f)}$	High frequency on-state current	$F=10KHz, T_c=55^{\circ}C$				700	A
$I_{TSM}$	Surge on-state current	10ms half sine wave	125			9.6	kA
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$				461	$A^2s \cdot 10^3$
$V_{TO}$	Threshold voltage		125			1.44	V
$r_T$	On-state slope resistance					0.33	m $\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM}=2400A, F=21kN$	125			2.23	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			200	V/ $\mu$ s
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 1500A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$	125			1500	A/ $\mu$ s
$Q_{rr}$	Recovery charge	$I_{TM}=1000A, t_p=2000\mu s,$ $di/dt=-60A/\mu s, V_R=50V$	125		83		$\mu C$
$t_q$	Circuit commutated turn-off time	$I_{TM}=1000A, t_p=2000\mu s, V_R=50V$ $dv/dt=30V/\mu s, di/dt=-60A/\mu s$	125	6		15	$\mu s$
$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$	25	30		250	mA
$V_{GT}$	Gate trigger voltage			0.8		2.5	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 21kN				0.024	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.006	
$F_m$	Mounting force			18		25	kN
$T_{stg}$	Stored temperature			-40		140	$^{\circ}C$
$W_t$	Weight				380		g
Outline	P10						

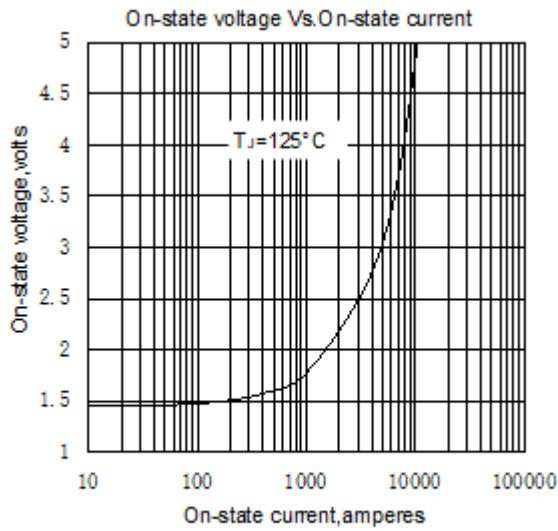


Fig. 1

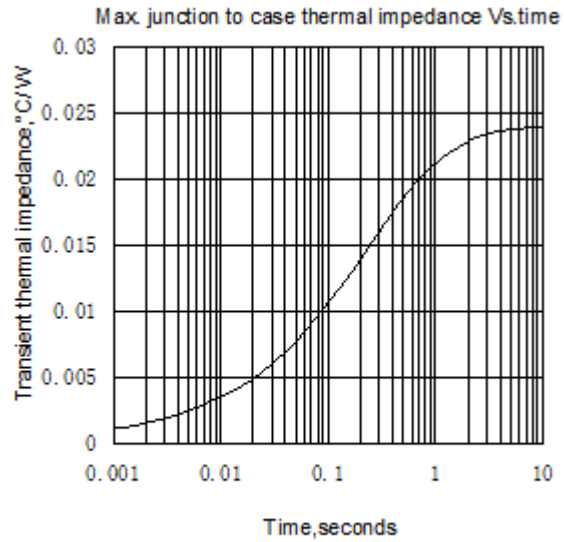


Fig. 2

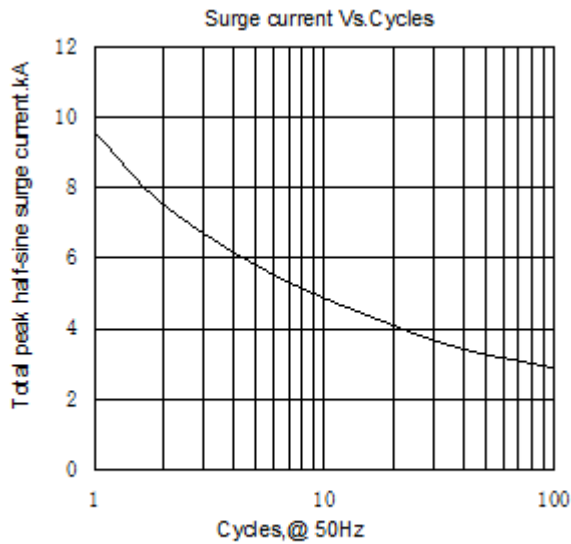


Fig. 3

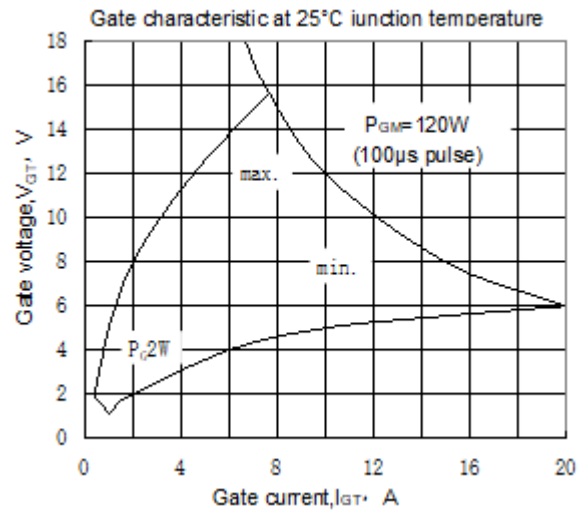


Fig. 4

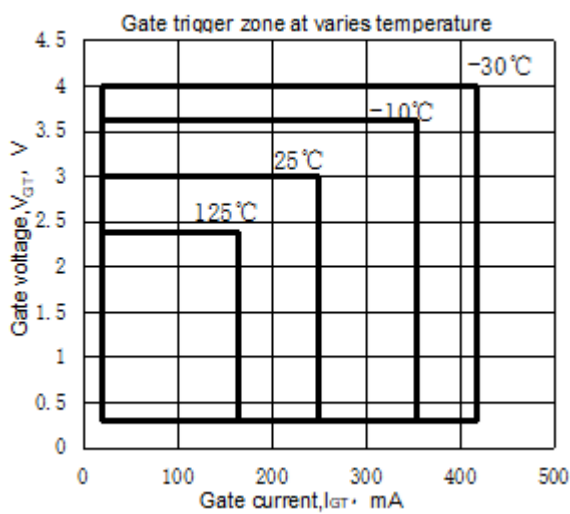
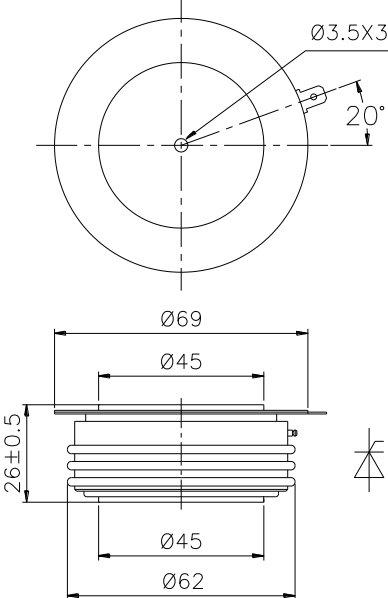


Fig. 5



Nlps reserves the right to change specifications without notice.