

**Features :**

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

**$I_{T(AV)}$                     1050A**  
 **$V_{DRM}/V_{RRM}$             1100 ~ 1400V**  
 **$t_q$                             12 ~ 28 $\mu$ s**  
 **$I_{TSM}$                         12.0 kA**

**Typical Applications**

- Inductive heating
- Electronic welders
- Self-commutated inverters
- AC motor speed control

SYMBOL	CHARACTERISTIC	TEST CONDITIONS		$T_j(^{\circ}C)$	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			1050	A
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	1100		1400	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak off-state current Repetitive peak reverse current	at $V_{DRM}$ at $V_{RRM}$		125			60	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave		125			12	kA
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$					720	$A^2s \cdot 10^3$
$V_{TO}$	Threshold voltage			125			1.61	V
$r_T$	On-state slope resistance						0.45	m $\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM}=1800A, F=21kN$		25			3.20	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			1000	V/ $\mu$ s
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 1600A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$		125			1500	A/ $\mu$ s
$Q_{rr}$	Recovery charge	$I_{TM}=1000A, tp=4000\mu s,$ $di/dt=-20A/\mu s, V_R=100V$		125		83	100	$\mu C$
$t_q$	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	12		28	$\mu s$
$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$		25			250	mA
$V_{GT}$	Gate trigger voltage					0.8	3.0	V
$I_H$	Holding current					20	400	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 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
$T_{vj}$	Junction temperature				-40		125	$^{\circ}C$
$T_{stg}$	Stored temperature				-40		140	$^{\circ}C$
$W_t$	Weight					380		g
Outline	P10							

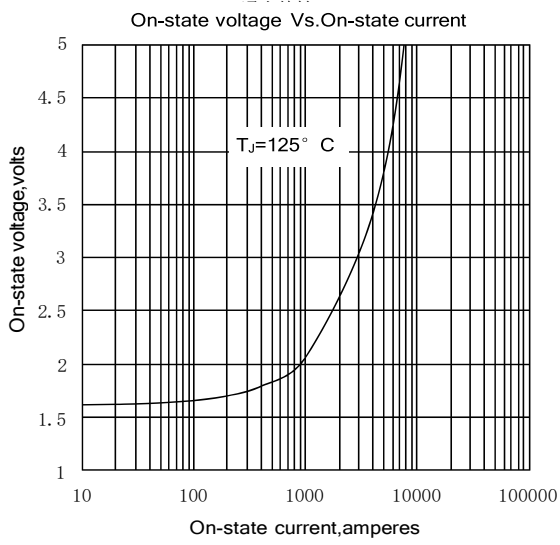


Fig. 1

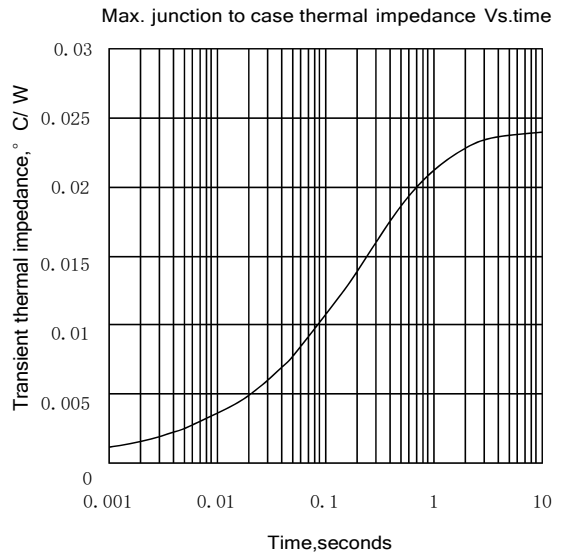


Fig. 2

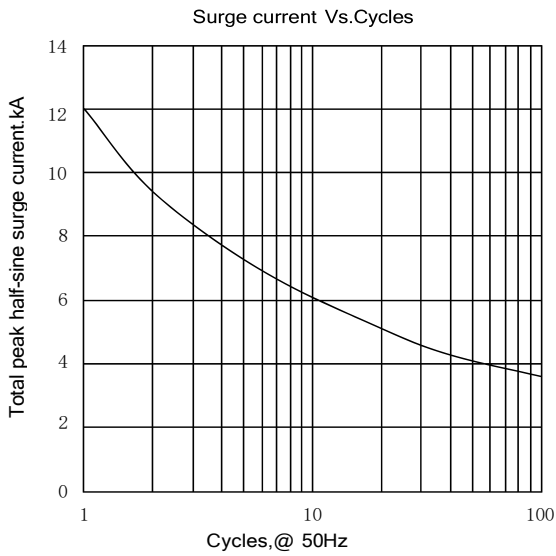


Fig. 3

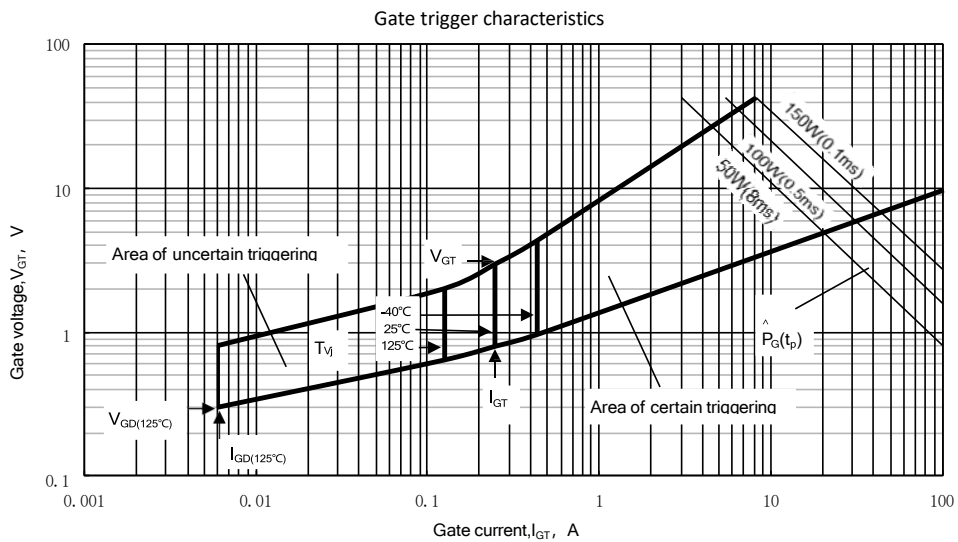
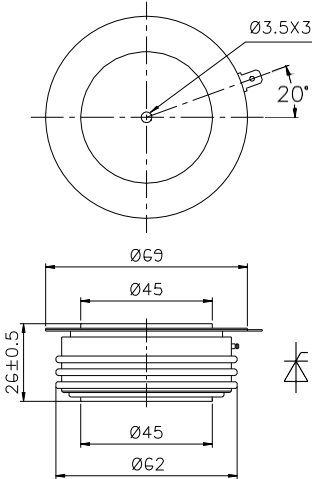


Fig. 4

Outline:



Nlps reserves the right to change specifications without notice.