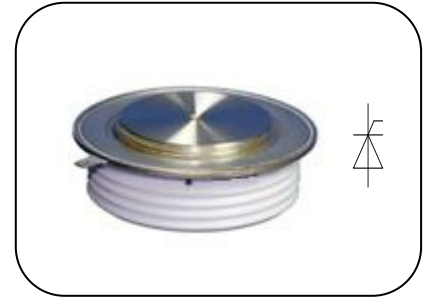


**Features**

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

**$I_{T(AV)}$  1520A**  
 **$V_{DRM}/V_{RRM}$  1100~1400V**  
 **$t_q$  15~28 $\mu$ s**  
 **$I_{TSM}$  18kA**



**Typical Applications**

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS		$T_f(^\circ\text{C})$	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		1520	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			100	mA
$I_{T(f)}$	High frequency on-state current	F=6KHz, $T_c=55^\circ\text{C}$					1000	A
$I_{TSM}$	Surge on-state current	10ms half sine wave		125			18	kA
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$					1620	$\text{A}^2\text{s} \times 10^3$
$V_{TO}$	Threshold voltage			125			1.63	V
$r_T$	On-state slope resistance						0.25	m $\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM}=3000\text{A}$ , F=26kN		25			2.38	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 2500A Gate pulse $t_r \leq 0.5\mu\text{s}$ $I_{GM}=1.5\text{A}$		125			1500	A/ $\mu$ s
$Q_{rr}$	Recovery charge	$I_{TM}=1000\text{A}$ , tp=2000 $\mu$ s, di/dt=-60A/ $\mu$ s, $V_R=50\text{V}$		125		105		$\mu\text{C}$
$t_q$	Circuit commutated turn-off time	$I_{TM}=1000\text{A}$ , tp=2000 $\mu$ s, $V_R=50\text{V}$ dv/dt=30V/ $\mu$ s, di/dt=-60A/ $\mu$ s		125	15		28	$\mu\text{s}$
$I_{GT}$	Gate trigger current			25	30		300	mA
$V_{GT}$	Gate trigger voltage	$V_A=12\text{V}$ , $I_A=1\text{A}$			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					0.018	$^\circ\text{C}/\text{W}$
$R_{th(c-h)}$	Thermal resistance case to heat sink	Clamping force 26kN					0.004	
$F_m$	Mounting force				21		30	kN
$T_{stg}$	Stored temperature				-40		140	$^\circ\text{C}$
$W_t$	Weight					590		g
Outline	P12							

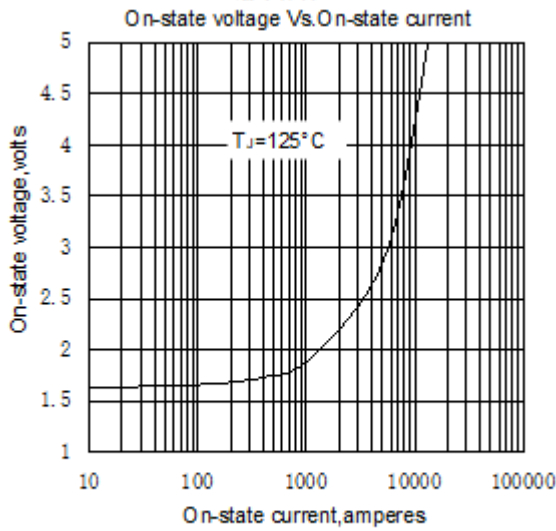


Fig. 1

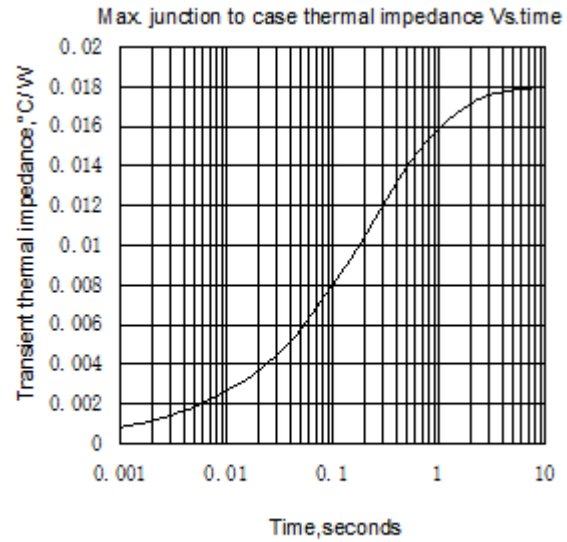


Fig. 2

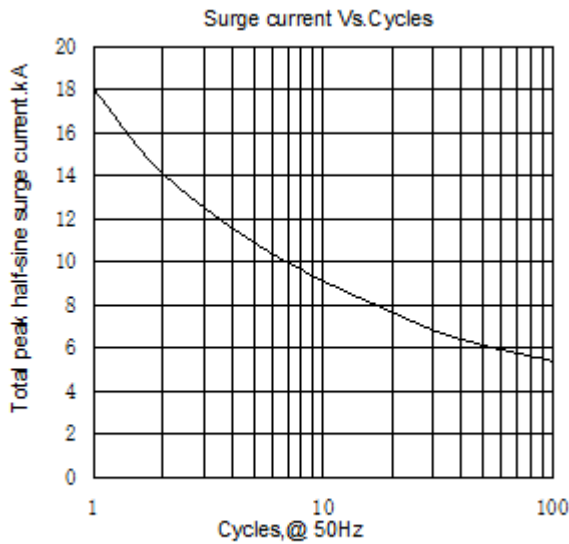


Fig. 3

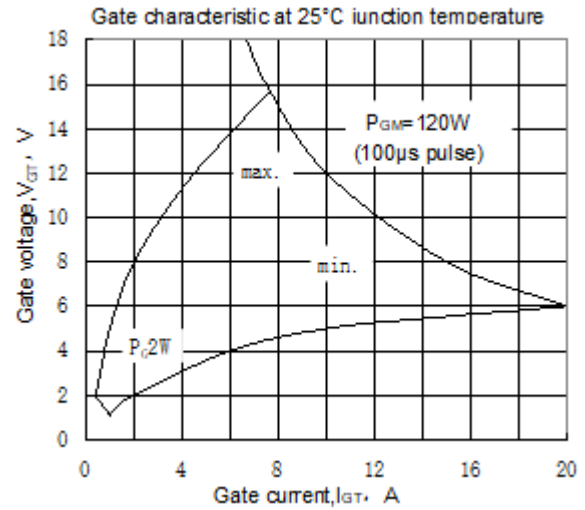


Fig. 4

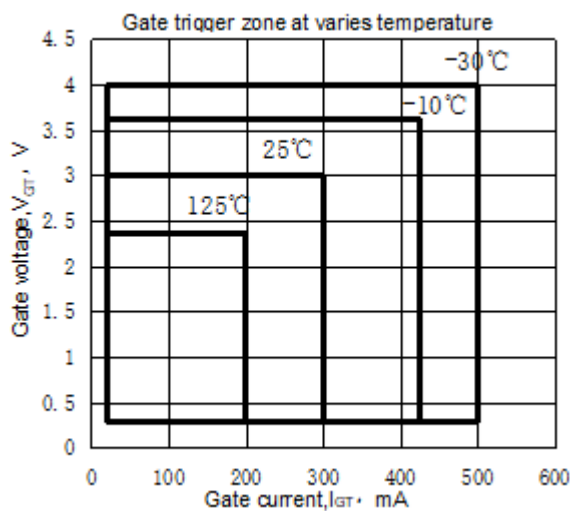
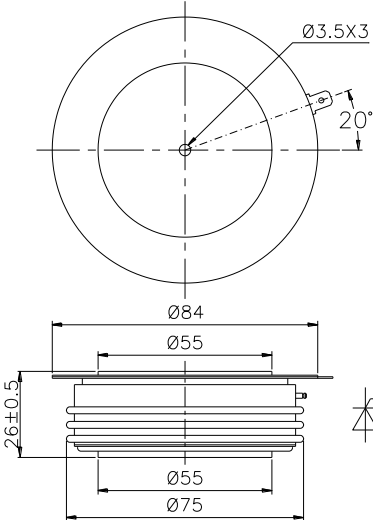


Fig. 5



Nlps reserves the right to change specifications without notice.