

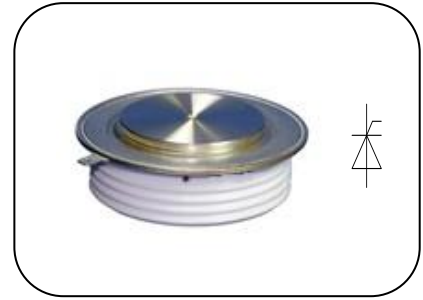
Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	4300A
V_{DRM}/V_{RRM}	4500~5200V
t_q	60~150μs
I_{TSM}	40 kA
I^2t	8000 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			4300	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	4500		5200	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			250	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			40	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$				8000	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.58	V
r_T	On-state slope resistance					0.15	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=2500A, F=70kN$	125			3.40	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 4000A Gate pulse $t_r \leq 0.5\mu s$, $I_{GM}=1.5A$	125			1200	A/ μ s
Q_{rr}	Recovery charge	$I_{TM}=2000A, tp=2000\mu s$, di/dt=-60A/ μ s, $V_R=50V$	125		5000		μ C
t_q	Circuit commutated turn-off time	$I_{TM}=2000A, tp=2000\mu s, V_R=50V$ dv/dt=30V/ μ s, di/dt=-60A/ μ s	125	60		150	μ s
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$	25	40		450	mA
V_{GT}	Gate trigger voltage			0.9		4.5	V
I_H	Holding current			20		1000	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	125	0.25			V
$R_{th(j-c)}$	Thermal resistance Junction to case	DC· double side cooled Clamping force 40 kN				0.0050	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.0015	
F_m	Mounting force			81		108	kN
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				1880		g
Outline	P67						

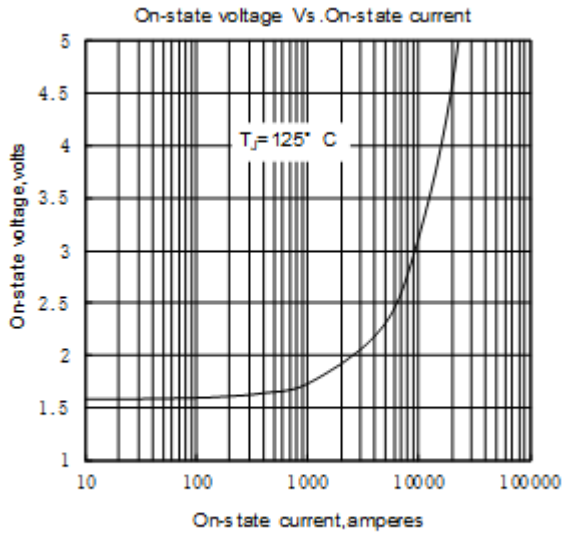


Fig. 1

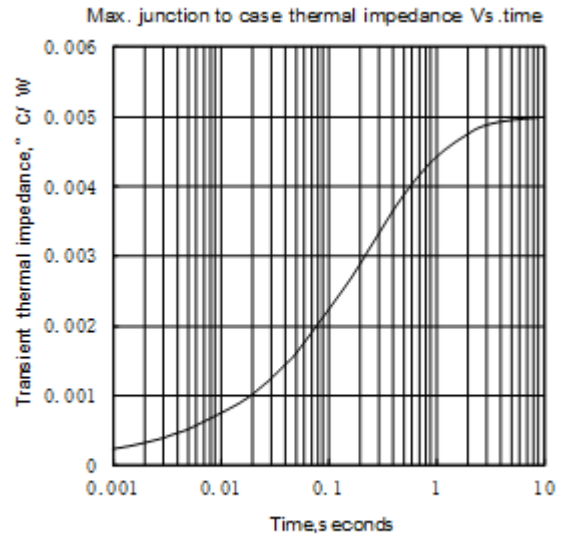


Fig. 2

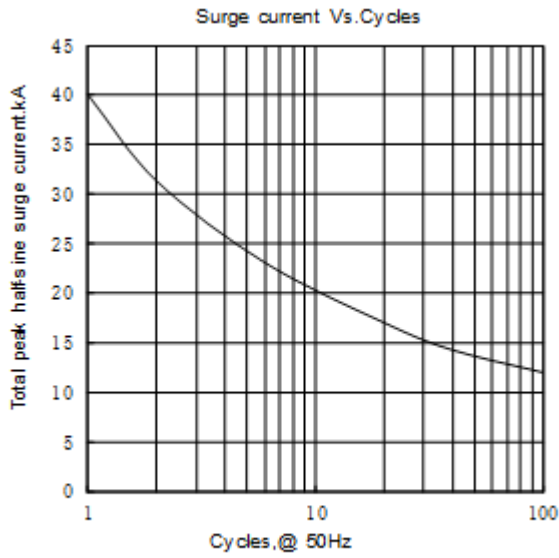


Fig. 3

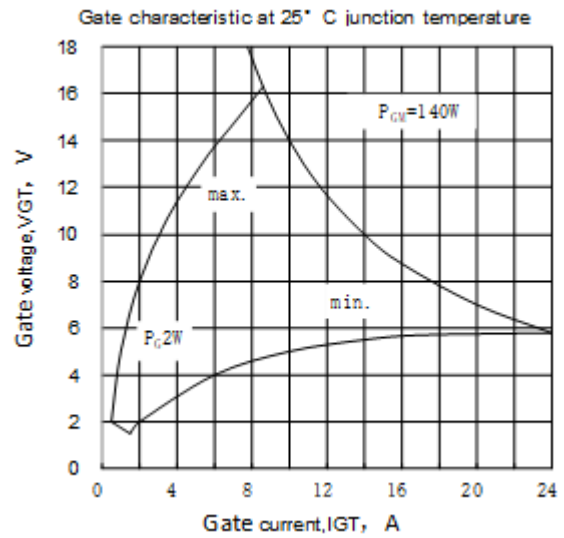


Fig. 4

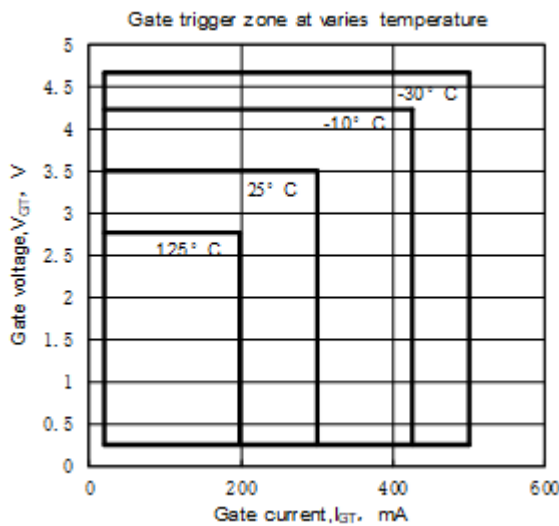
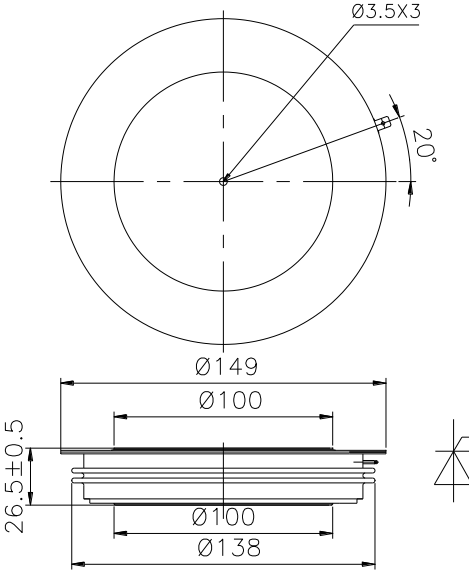


Fig. 5



Nlps reserves the right to change specifications without notice.