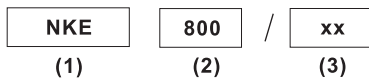


Diode Module

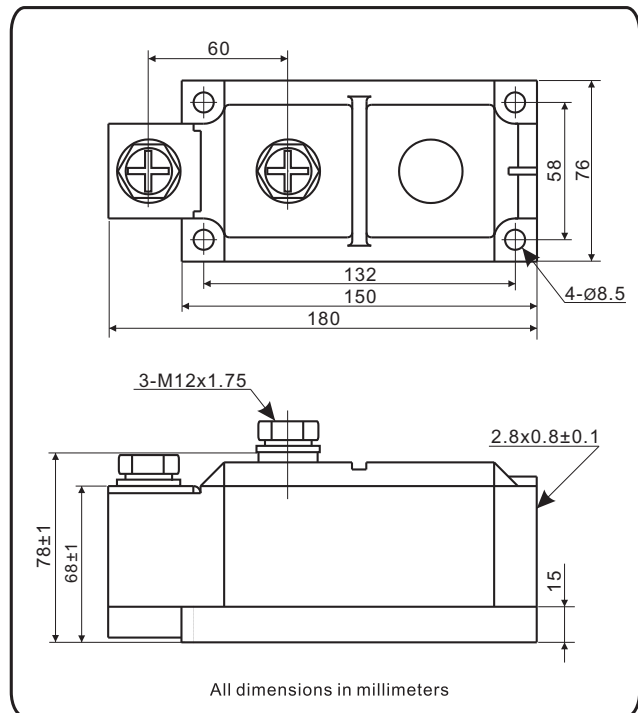
Features

1. NKE800 Series Diode modules are Designed for various power controls
2. Voltage rating up to 1600V
3. Electrically isolated mounting base
4. Internal connections

Ordering code



- (1) For Diode modules NKE
 (2) Maximum average forward current, A
 (3) Voltage code, V (code x 100 = V_{RRM})



Electrical Characteristics

Parameter		Condition	Max. Value	Unit
$I_{F(AV)}$	Average forward current	180° half sine wave, 50 Hz, $T_j=150^\circ\text{C}$ Single side cooled, $T_c=100^\circ\text{C}$	800	A
$I_{F(RMS)}$	R.M.S. Forward current	Single side cooled, $T_c=85^\circ\text{C}$, $T_j=150^\circ\text{C}$	1256	A
V_{RRM}	Repetitive peak reverse voltage	$t_p=10\text{ ms}$, $V_{RMS}=V_{RRM} \times 1.1$, $T_j=150^\circ\text{C}$	600 to 1600	V
I_{RRM}	Repetitive peak reverse current	$V_R=V_{RRM}$, $T_j=150^\circ\text{C}$	40	mA
I_{FSM}	Peak one-cycle surge (non-repetitive forward current)	10 ms duration, $T_j=150^\circ\text{C}$ $V_R=0.6 V_{RRM}$	18	KA
I_t^2	Max. Permissible surge energy		1650	$\text{A}^2\text{S} \times 10^3$
V_{FM}	Peak forward voltage drop	$I_{FM}=2400\text{A}$, @ $T_c=25^\circ\text{C}$	1.7	V
$V_F(T_0)$	Forward conduction threshold voltage		0.75	V
r_t	Forward conduction slope resistance		0.34	$\text{m}\Omega$
T_{stg}	Storage temperature range		-40 to 160	$^\circ\text{C}$
$R_{th(J-C)}$	Thermal resistance	Single side cooled	0.08	$^\circ\text{C}/\text{W}$
W_t	Approximate weight		2300	g
T	Busbar to module (M 10)	A mounting compound is recommended. Torque should be rechecked after a period of 3 hours.	60	Kg-CM
	Module to heatsink (M 6)		30	Kg-CM

Fig. 1
Peak On-state Voltage Vs Peak On-state Current

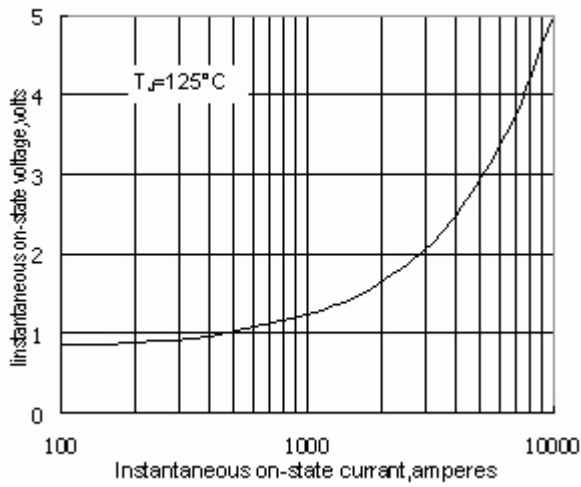


Fig. 2
Max junction To case Thermal Impedance Vs Time

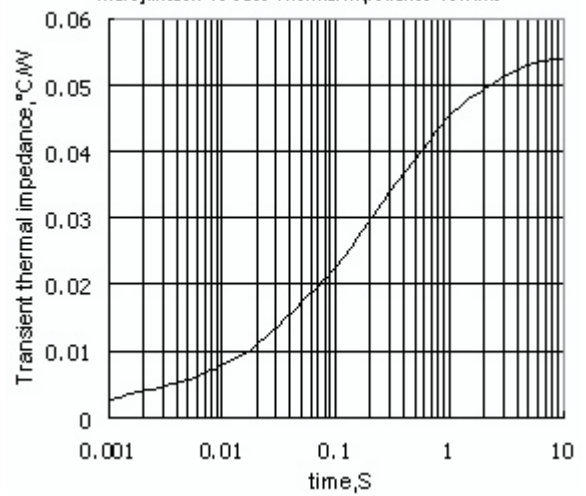


Fig. 3
Max Power Dissipation Vs Mean On-state Current

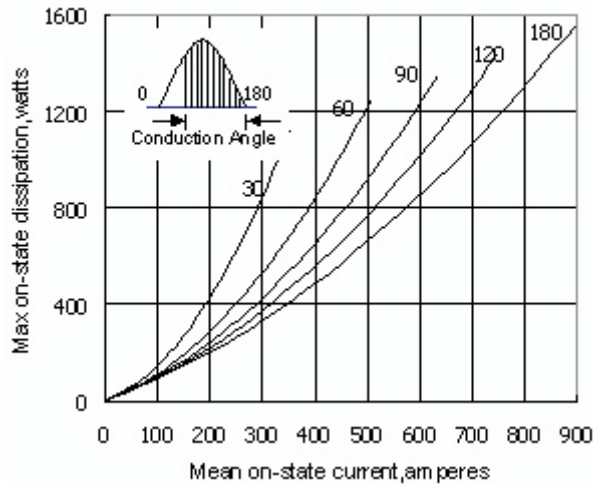


Fig. 4
Max case Temperature Vs Mean On-state Current

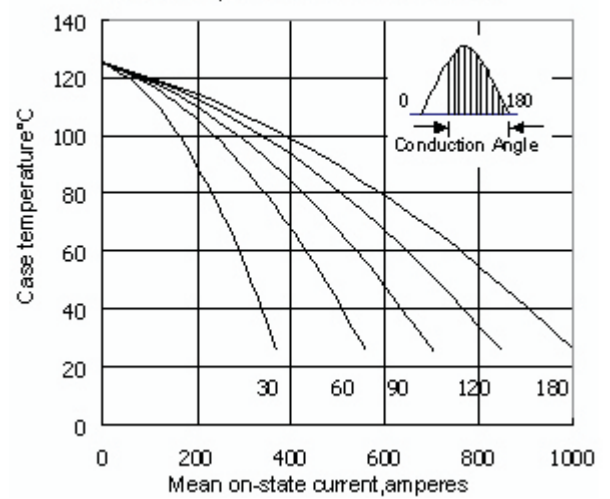


Fig. 5
Max Power Dissipation Vs Mean On-state Current

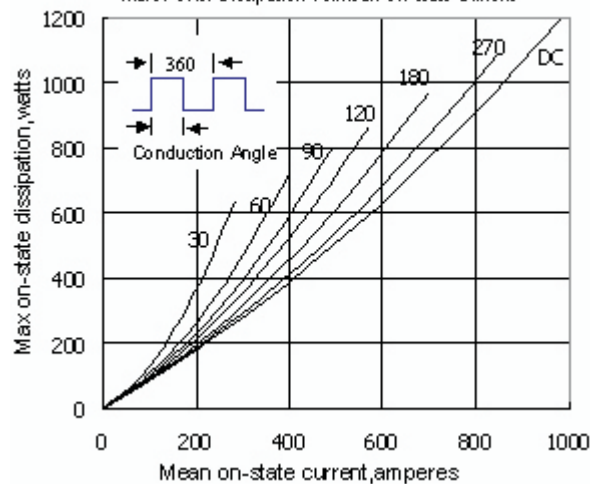


Fig. 6
Max case Temperature Vs Mean On-state Current

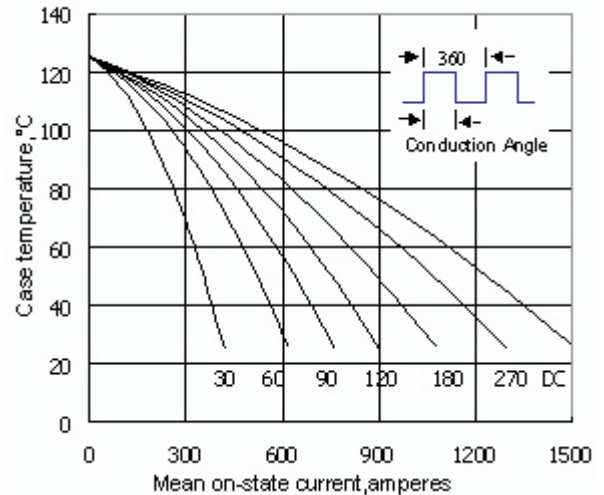


Fig. 7

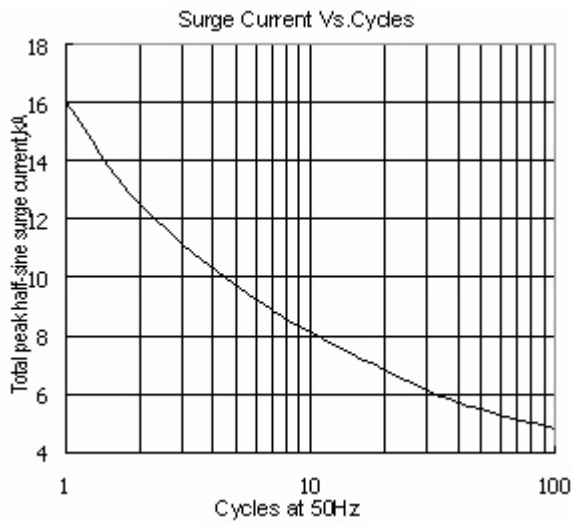


Fig. 8

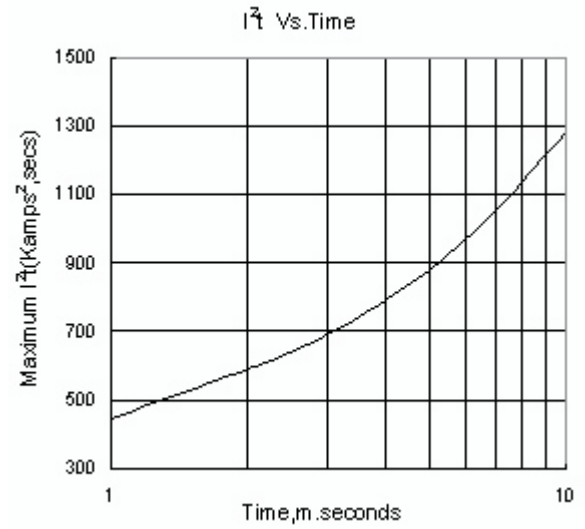


Fig. 9

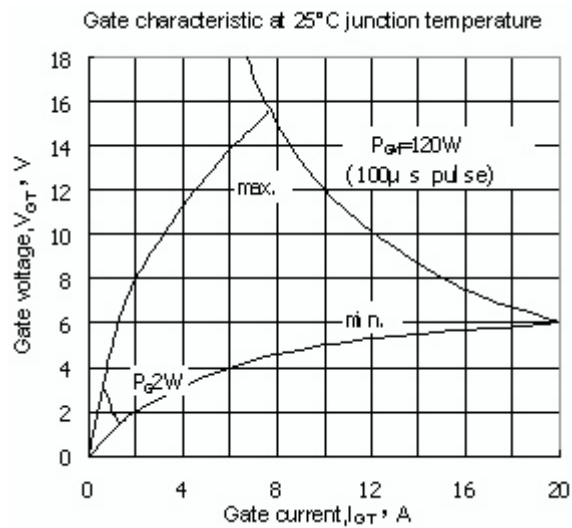


Fig. 10

