

FEATURES

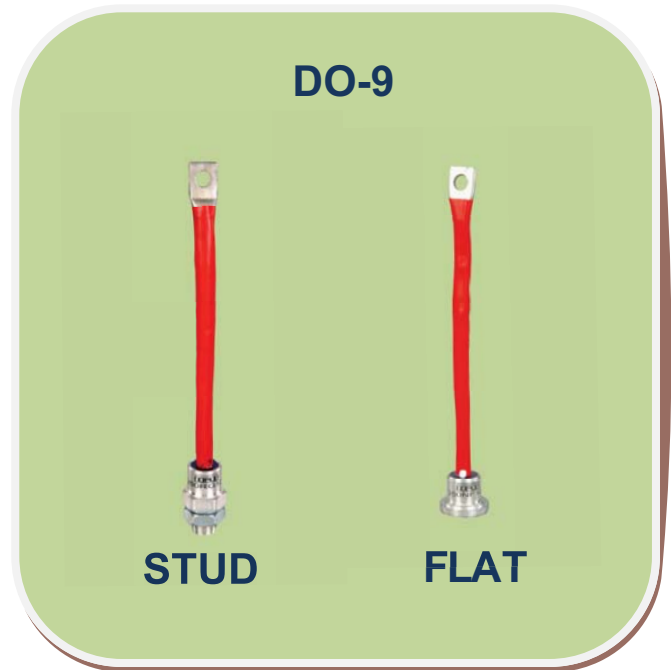
- Available in Normal & Reverse Polarity
- All Diffused Series
- Industrial Grade
- Available in Avalanche Characteristic

TYPICAL APPLICATIONS

- Power supplies
- Machine tool controls
- Battery chargers
- Welders

TECHNICAL DATA

DEVICE TYPE	V_{RRM} (V)	V_{RSM} (V)
320NG40/320RG40 320NF40/320RF40	400	500
320NG120/320RG120 320NF120/320RF120	1200	1300
320NG160/320RG160 320NF160/320RF160	1600	1700



SYMBOL	CONDITIONS	VALUES
$I_{F(AV)}$	Maximum average forward Current $T_c = 130^\circ\text{C}$	320A
V_{FM}	Maximum peak forward Voltage drop @ Rated $I_{F(Peak)}$	1.65 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec	5500A
I^2t	Max. I^2t rating (non-rep.) for 10 msec	151000 A ² Sec
I_{RRM}	Peak reverse current at $T_{vj} = 175^\circ\text{C}$	50 mA
V_0 R_0	$T_{vj} = \text{max}$ $T_{vj} = \text{max}$	0.85 V 0.45 mΩ
$R_{th(j-c)}$ $R_{th(c-h)}$ $R_{th(c-h)}$ T_{vj} T_{stg}	Maximum thermal resistance (Junction to case) Maximum thermal resistance (Case to heat sink)(NG,RG) Maximum thermal resistance (Case to heat sink)(NF,RF) Junction temperature Storage temperature	0.12 °C/W 0.10 °C/W 0.07 °C/W 200 °C 200 °C
Mounting torque		30 Nm
Weight	Approx.	260 gms
Package Outline		G,F

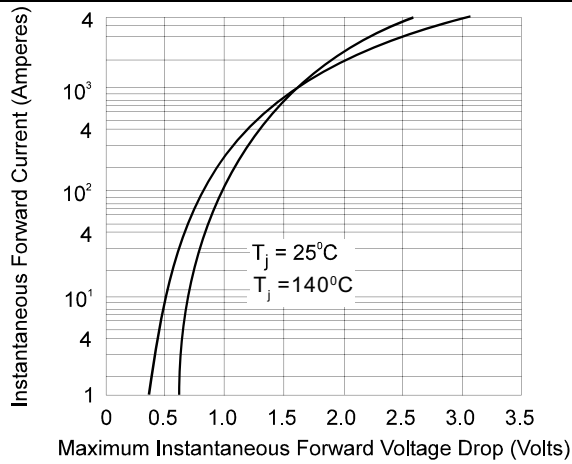


Fig. 1 - Forward Voltage Drop Vs. Forward Current

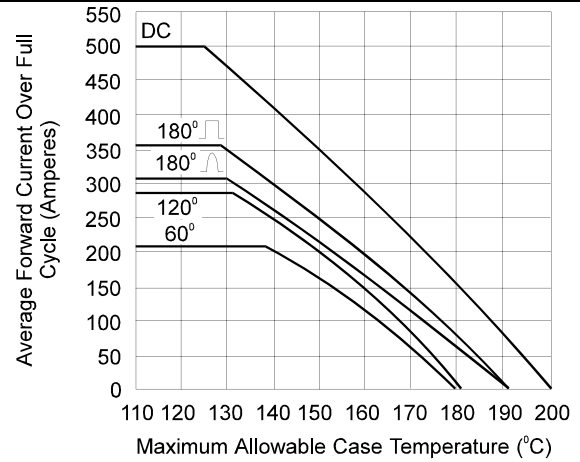


Fig. 2 - Average Forward Current Vs. Case Temperature

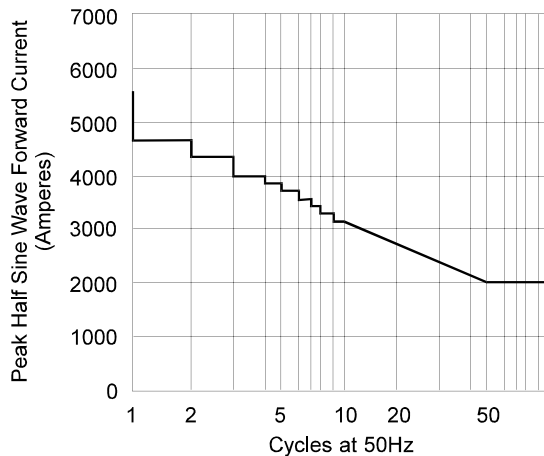


Fig. 3 - Maximum Non Recurrent Surge Current

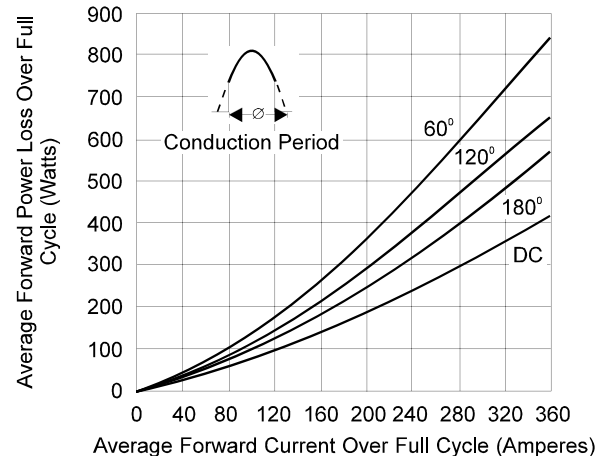


Fig. 4 - Maximum Forward Power Loss Vs. Forward Current

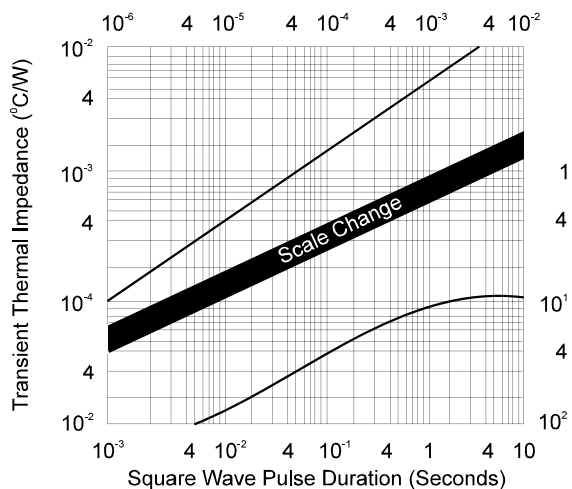


Fig. 5 - Transient Thermal Impedance

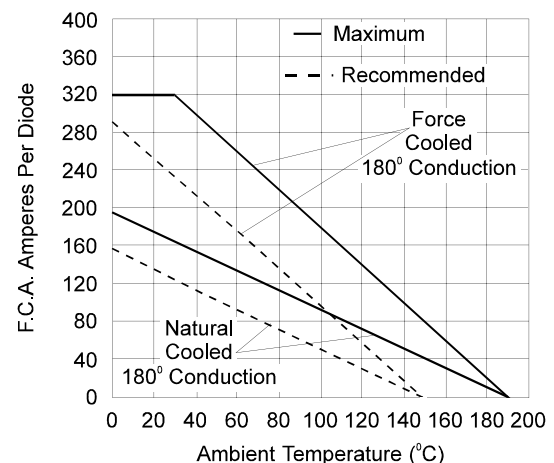
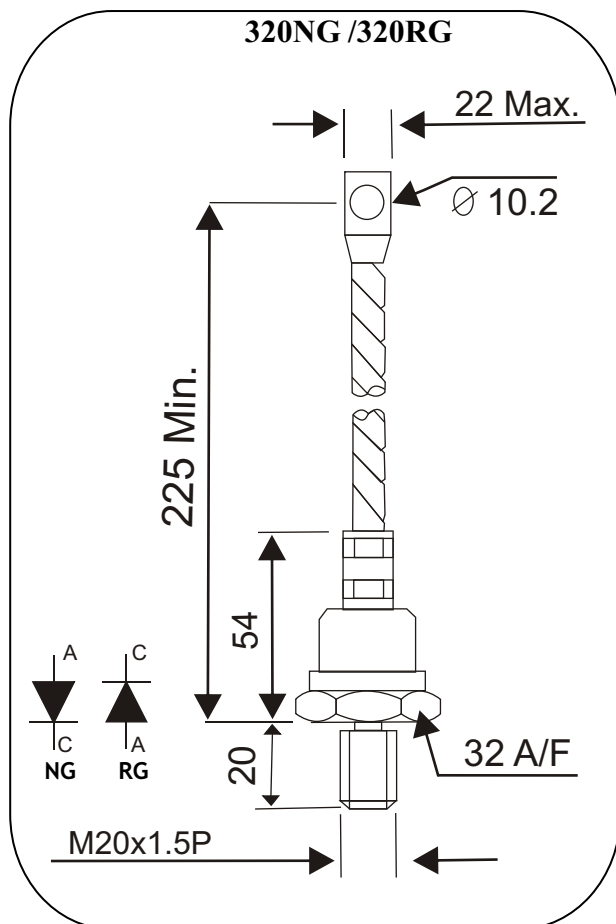
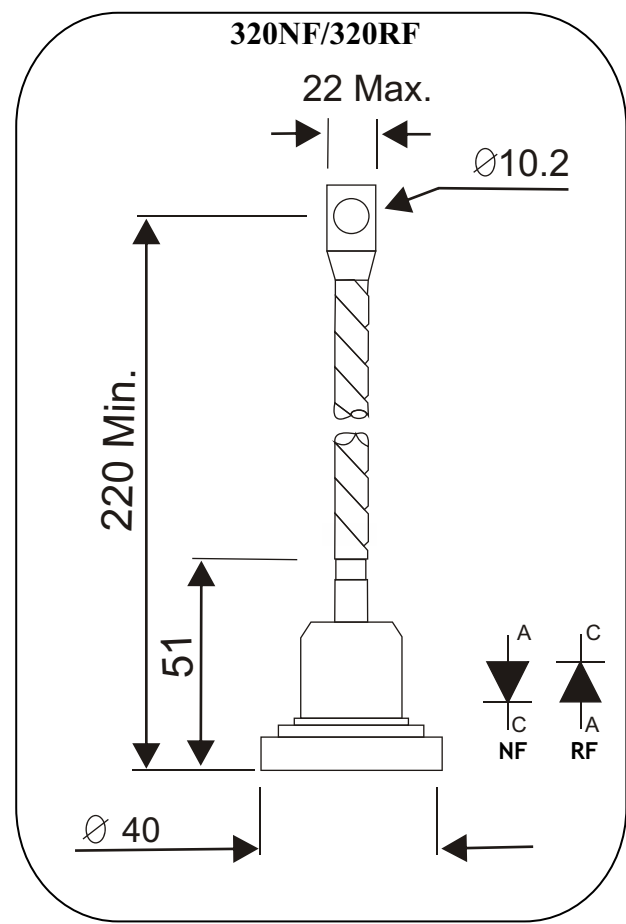


Fig. 6 - Diode 320NG/RG Mounted on Heat Sink

PACKAGE OUTLINE



All dimensions are in mm.

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