

FEATURES

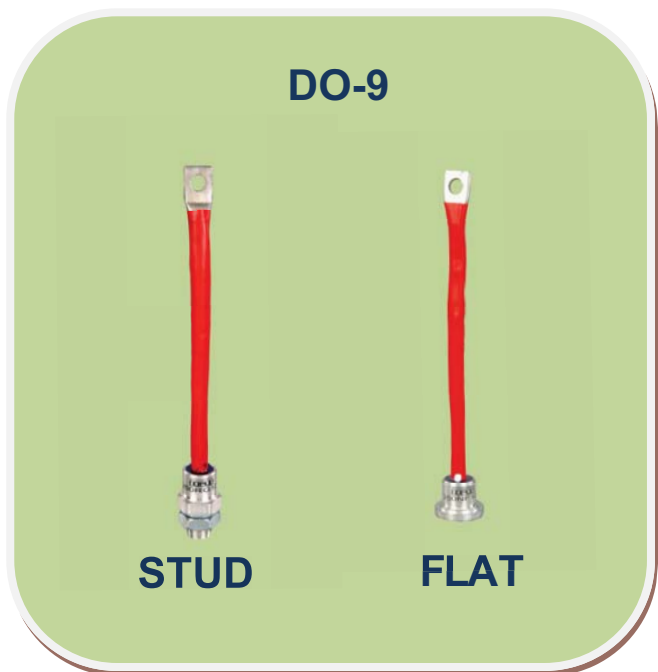
- Available in Normal & Reverse Polarity
- All Diffused Series
- Industrial Grade
- Available in Avalanche Characteristic

TYPICAL APPLICATIONS

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

TECHNICAL DATA

DEVICE TYPE	V_{RRM} (V)	V_{RSM} (V)
300NG40/300RG40 300NF40/300RF40	400	500
300NG120/300RG120 300NF120/300RF120	1200	1300
300NG160/300RG160 300NF160/300RF160	1600	1700



SYMBOL	CONDITIONS	VALUES
$I_{F(AV)}$	Maximum average forward Current $T_c = 130^{\circ}\text{C}$	300A
V_{FM}	Maximum peak forward Voltage drop @ Rated $I_{F(Peak)}$	1.40 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec	5000A
I^2t	Max. I^2t rating (non-rep.) for 10 msec	125000 A^2Sec
I_{RRM}	Peak reverse current at $T_{vj} = 175^{\circ}\text{C}$	50 mA
V_0 R_0	$T_{vj}=\text{max}$ $T_{vj}=\text{max}$	0.80 V 0.45 $\text{m}\Omega$
$R_{th(j-c)}$ $R_{th(c-h)}$ $R_{th(c-h)}$ 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 $^{\circ}\text{C}/\text{W}$ 0.08 $^{\circ}\text{C}/\text{W}$ 0.05 $^{\circ}\text{C}/\text{W}$ 200 $^{\circ}\text{C}$ 200 $^{\circ}\text{C}$
Mounting torque		30 Nm
Weight	Approx.	260 gms
Package Outline		G,F

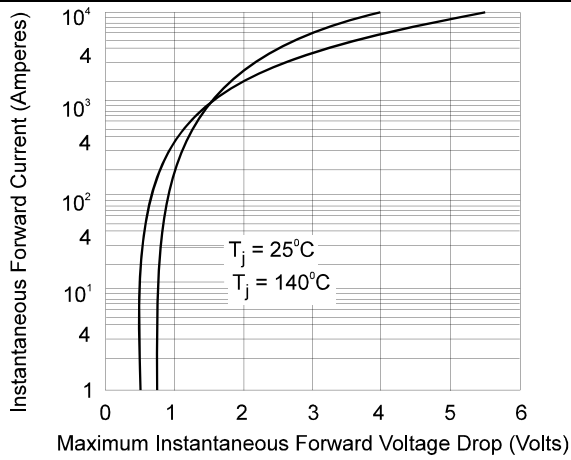


Fig. 1 - Forward Voltage Drop Vs. Forward Current

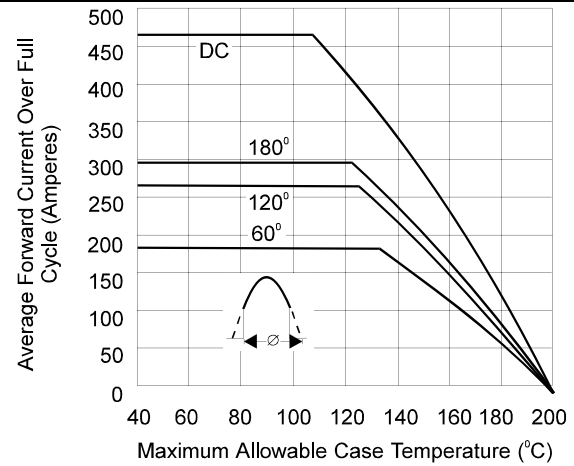


Fig. 2 - Average Forward Current Vs. Case Temperature

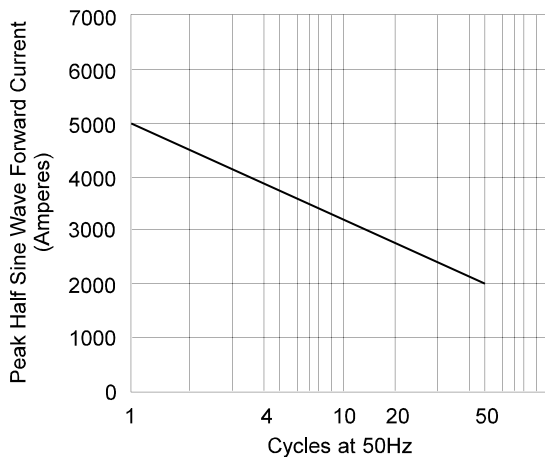


Fig. 3 - Maximum Non Recurrent Surge Current

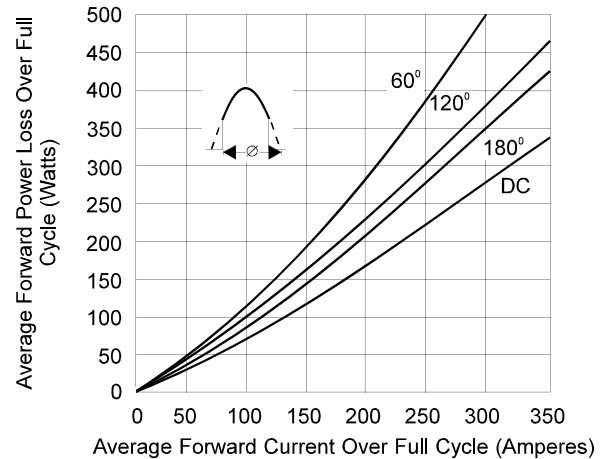


Fig. 4 - Maximum Forward Power Loss Vs. Forward Current

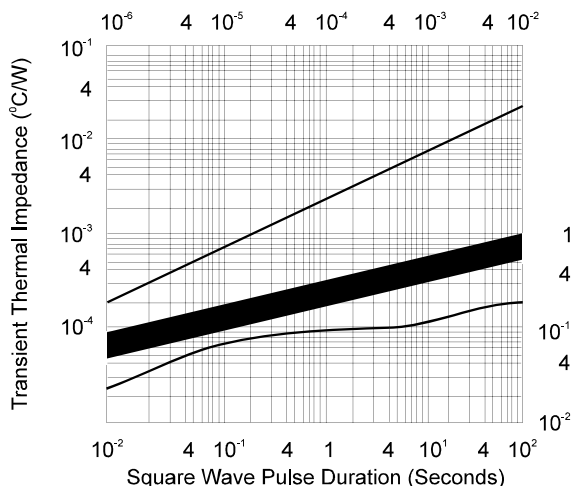


Fig. 5 - Transient Thermal Impedance

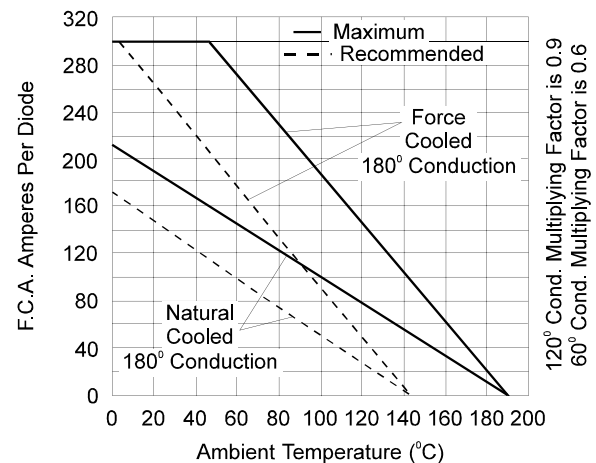
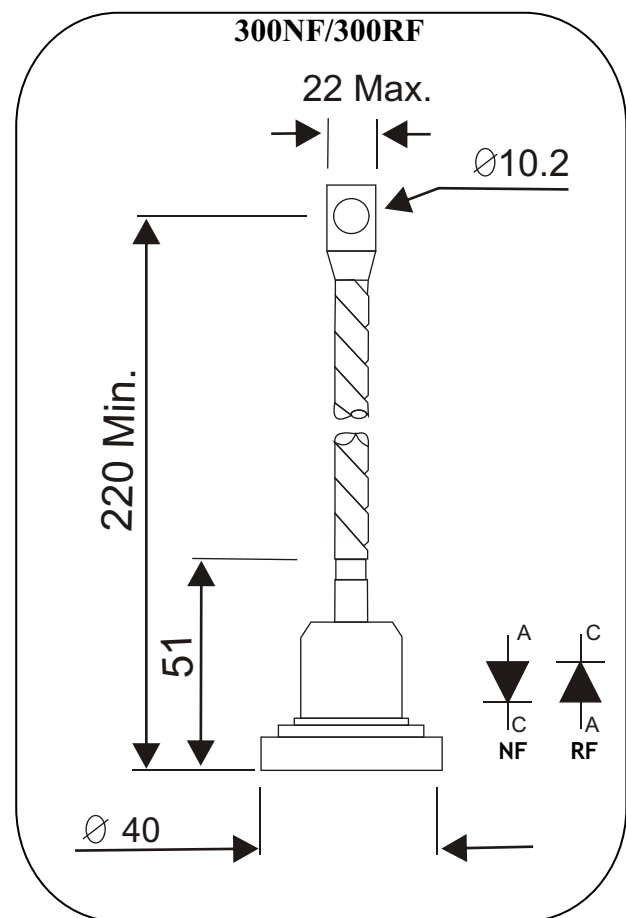
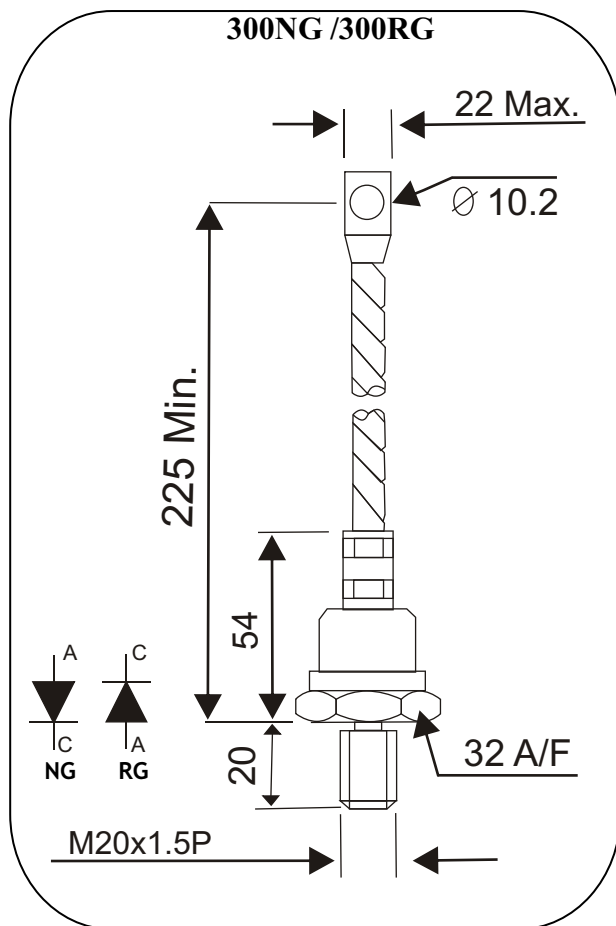


Fig. 6 - Diode Mounted on Heat Sink Type K5 with θ_{HA-NC} 0.55° C/W, FC 0.13° C/W

PACKAGE OUTLINE



All dimensions are in mm.

Insel Rectifiers (India) Pvt. Ltd.

(An ISO 9001:2015, ISO 14001:2015 Certified Company)

Plot No 151, Udyog Kendra, Extn.-II, Ecotech-III, Greater Noida-201306

Toll Free No.: 1800 3070 9989, Fax : 011-27491404

E-mail : insel@rectifierindia.com, sales@rectifierindia.com