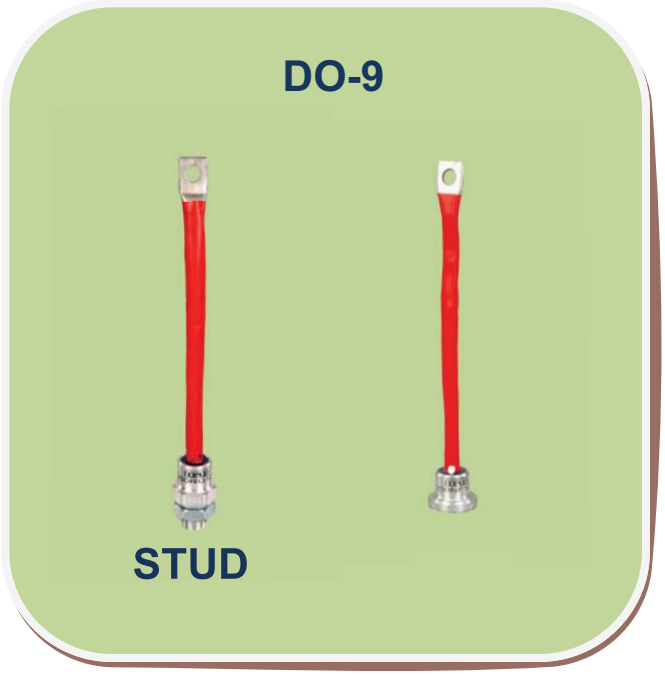
INTERNATIONAL
IRI

# POWER DIODE

## 400NG/400RG,400NF/400RF

### 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) |
|---|---|---|
| 400NG40,400RG40<br>400NF40,400RF40 | 400 | 500 |
| 400NG120,400RG120<br>400NF120,400RF120 | 1200 | 1300 |
| 400NG160,400RG160<br>400NF160,400RF160 | 1600 | 1700 |

| SYMBOL | CONDITIONS | VALUES |
|---|---|---|
| $I_{F(AV)}$ | Maximum average forward Current $T_C$ = 125$^0$C | 400A |
| $V_{FM}$ | Maximum peak forward Voltage drop @ Rated $I_{F(Peak)}$ | 1.62 V |
| $I_{FSM}$ | Maximum peak one cycle (non-rep.) surge current 10 msec | 8250 A |
| $I^2t$ | Max. $I^2t$ rating (non-rep.) for 10 msec | 340000A$^2$Sec |
| $I_{RRM}$ | Peak reverse current at $T_{vj}$ = 150$^0$C | 50 mA |
| $V_0$<br>$R_0$ | Tvj=max<br>Tvj=max | 0.80 V<br>0.35 m |
| $R_{th(j-c)}$<br>$R_{th(c-h)}$<br>$R_{th(c-h)}$<br>Tvj<br>Tstg | Maximum thermal resistance ( Junction to case)<br>Maximum thermal resistance ( Case to heat sink)(NG,RG)<br>Maximum thermal resistance ( Case to heat sink)(NF,RF)<br>Junction temperature<br>Storage temperature | 0.12 qC/W<br>0.08 qC/W<br>0.02 qC/W<br>180 qC<br>200 qC |
| Mounting torque | | 30 Nm |
| Weight | Approx. | 330 gms |
| Package Outline | | G,F |





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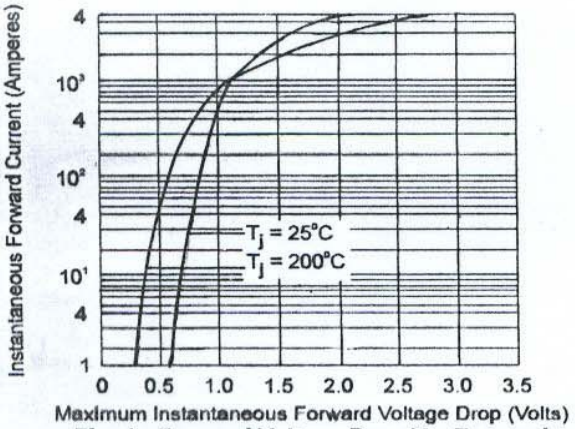



**Fig. 1 - Forward Voltage Drop Vs. Forward Current**

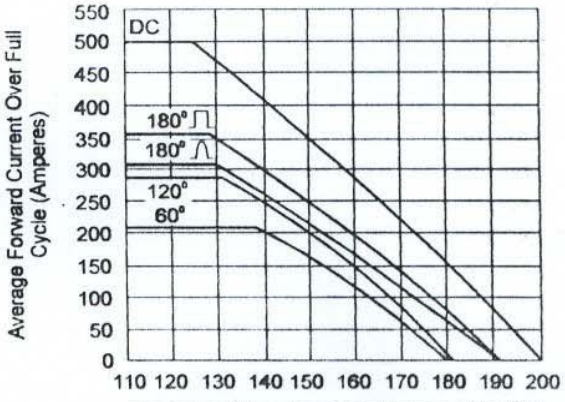



**Fig. 2 - Average Forward Current Vs. Case Temperature**

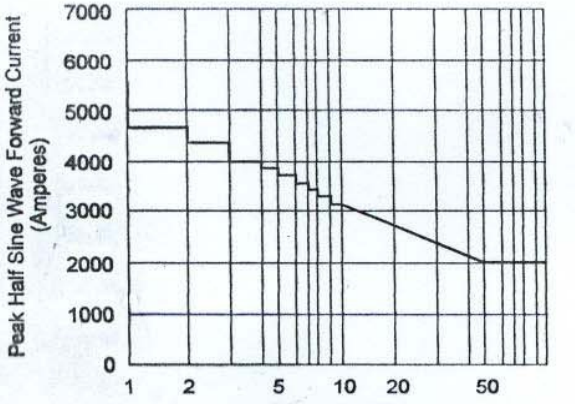



**Fig. 3 - Maximum Non Recurrent Surge Current**

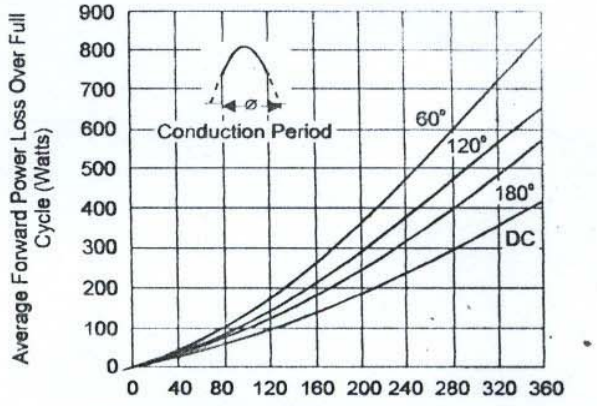



**Fig. 4 - Maximum Forward Power Loss Vs. Forward Current**

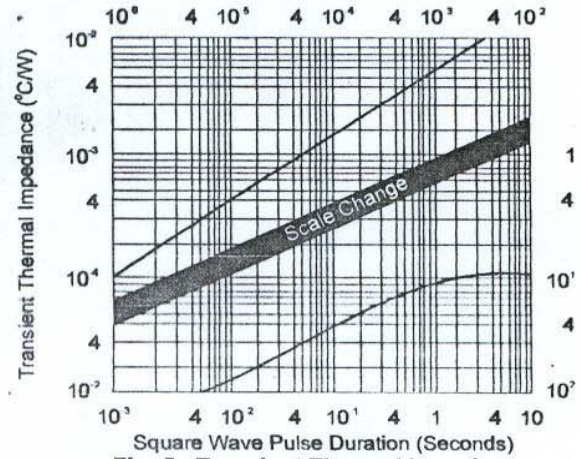



**Fig. 5 - Transient Thermal Impedance**

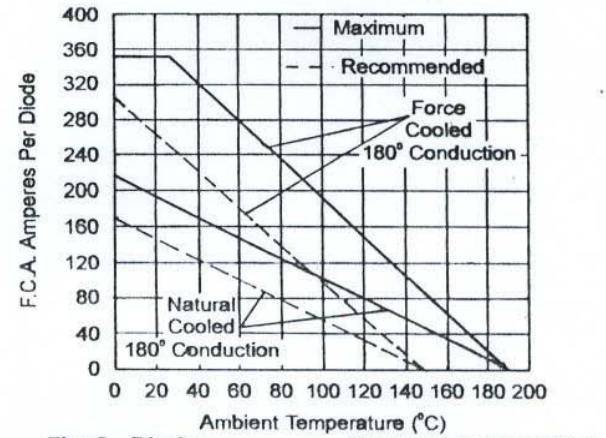
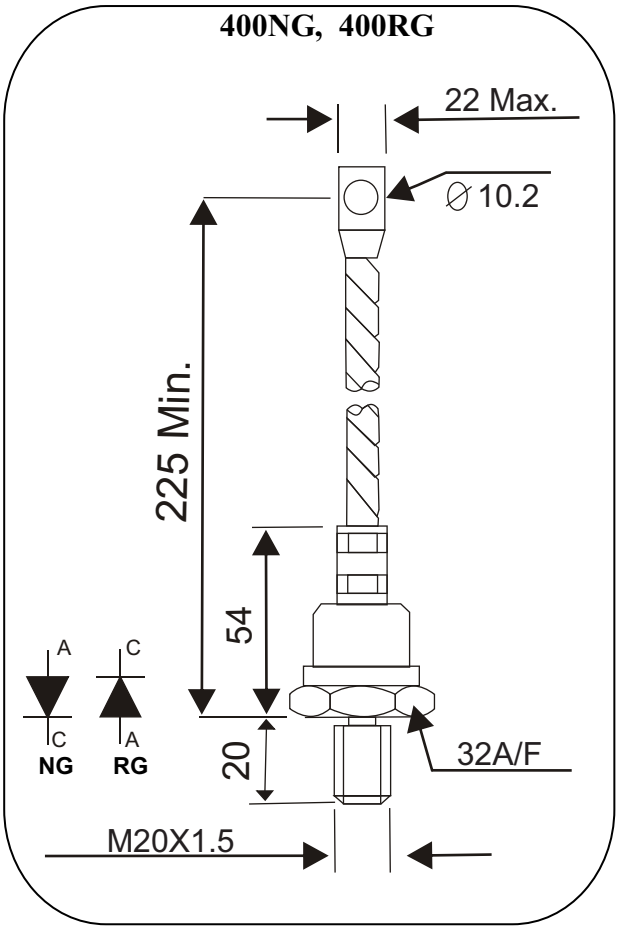


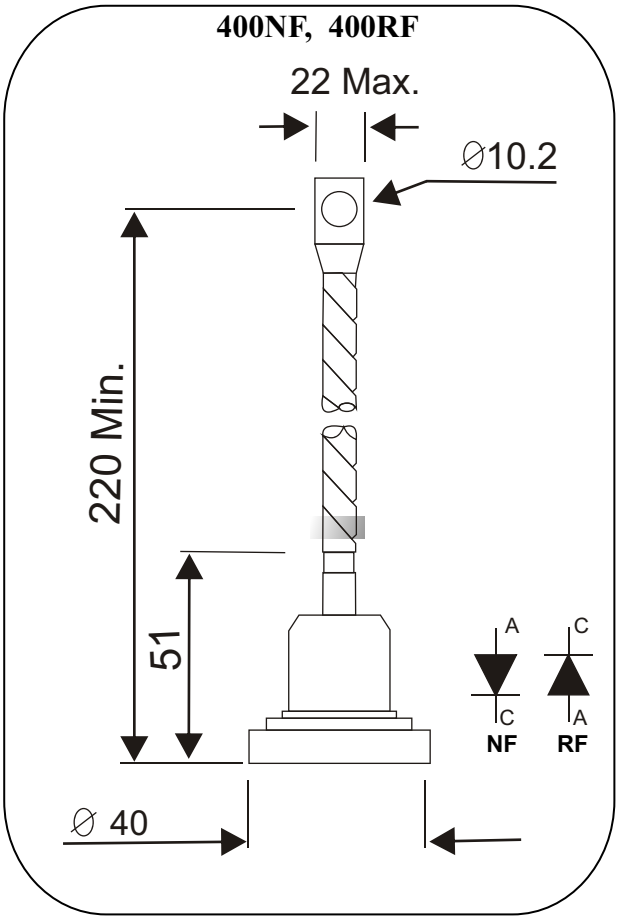

**Fig. 6 - Diode 350NG/RG Mounted on Heat Sink Type K5 with θHA-NC 0.55° C/W, FC 0.13°C/W**



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## PACKAGE OUTLINE




All dimensions are in mm.

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