INTERNATIONAL IRI

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POWER DIODE

250NG/RG, 250NF/RF

STUD FLAT

DO9

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**

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TECHNICAL DATA

DEVICE TYPE	V_{RRM} (V)	V_{RSM} (V)
250NG/RG40 250NF/RF40	400	500
250NG/RG120 250NF/RF120	1200	1300
250NG/RG160 250NF/RF160	1600	1700

SYMBOL	CONDITIONS	VALUES
$I_{F(AV)}$	Maximum average forward Current T_C = 130^{0}C	250A
V_{FM}	Maximum peak forward Voltage drop @ Rated $I_{F(Peak)}$	1.35 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec	4500 A
I^2t	Max. I^2t rating (non-rep.) for 10 msec	92500 A^{2}Sec
I_{RRM}	Peak reverse current at T_{vj} = 175^{0}C	40 mA
V_0 R_0	Tvj=max Tvj=max	0.85 V 0.60 mΩ
$R_{th(j-c)}$ $R_{th(c-h)}$ $R_{th(c-h)}$ Tvj Tstg	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	0.18 °C/W 0.08 °C/W 0.05 °C/W 200 °C 200 °C
Mounting torque		30 Nm
Weight	Approx.	260 gms
Package Outline		G,F

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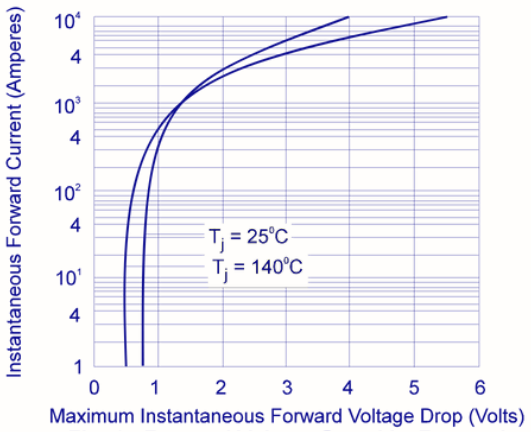
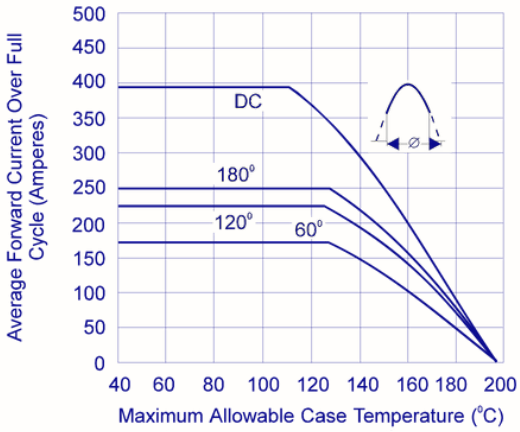


FIG. **1** forward voltage drop vs. forward current

FIG. **2** average forward current vs. case temperature



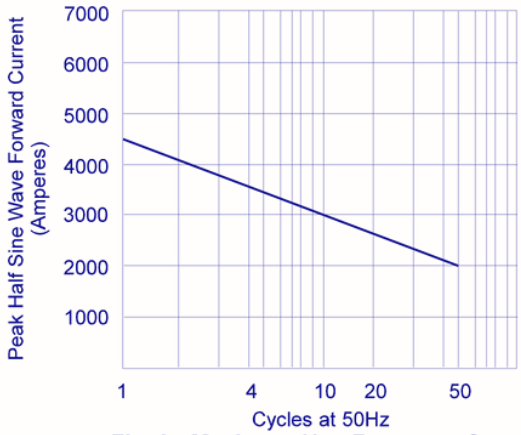


Fig. 3 - Maximum Non Recurrent Surge Current

FIG. **3** maximum non recurrent surge current

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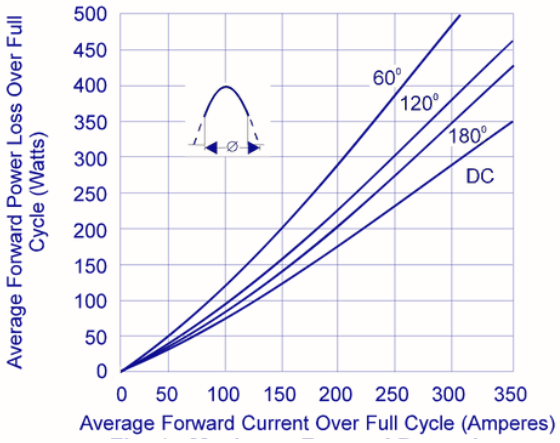

FIG. **4** **maximum forward power loss vs. forward current**

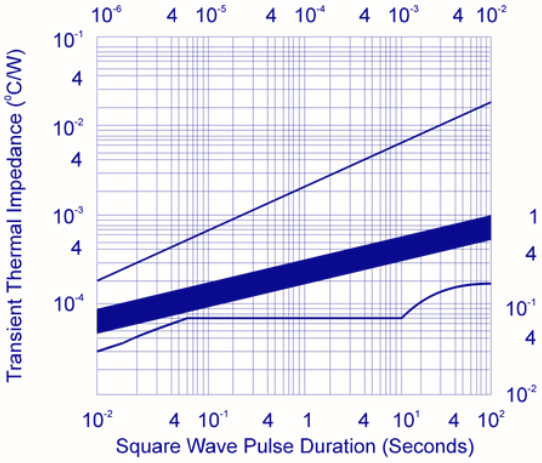

FIG. **5** **transient thermal impedance**

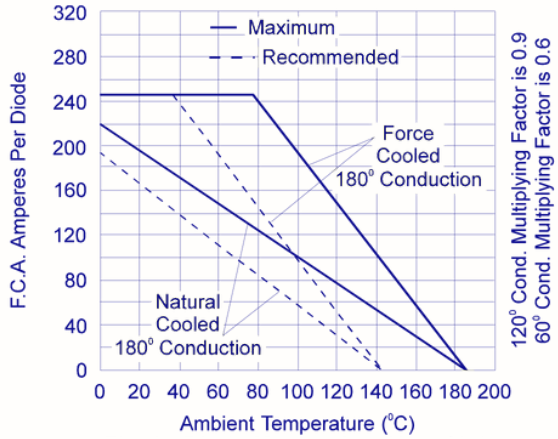

FIG. **6** **diode mounted on heat sink**

type K5 with θ HA NC 0.55° C / W, FC 0.13°C / W

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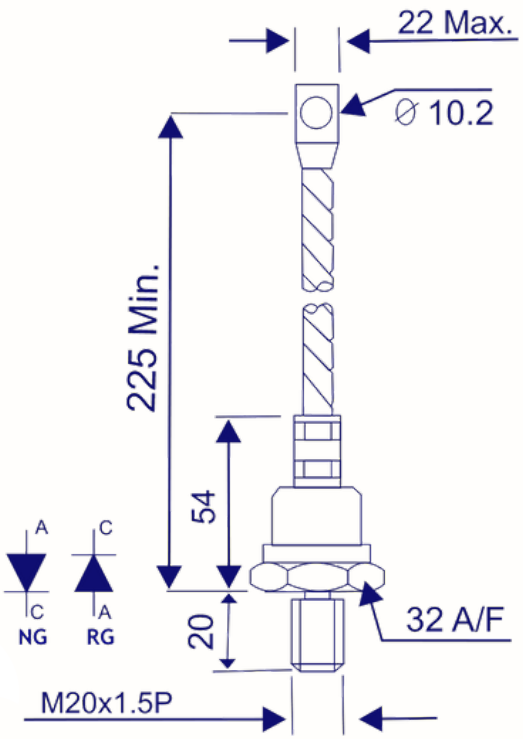
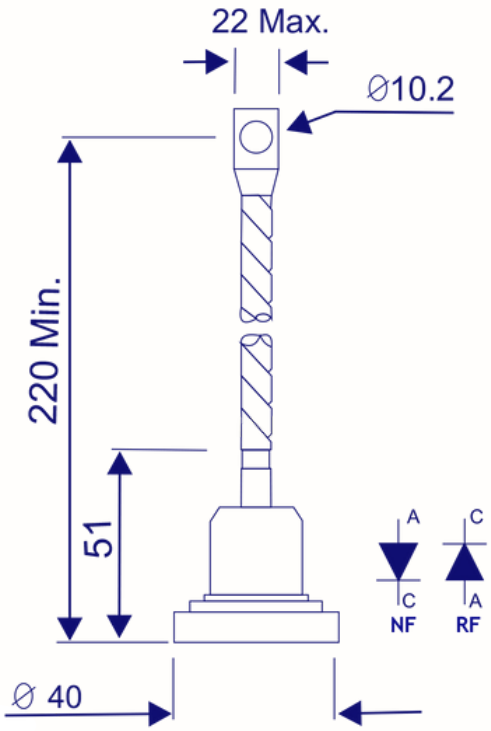
250NF/RF

PACKAGE OUTLINE

250NG/250RG



250NF/250RF



all dimensions in mm