

FEATURES

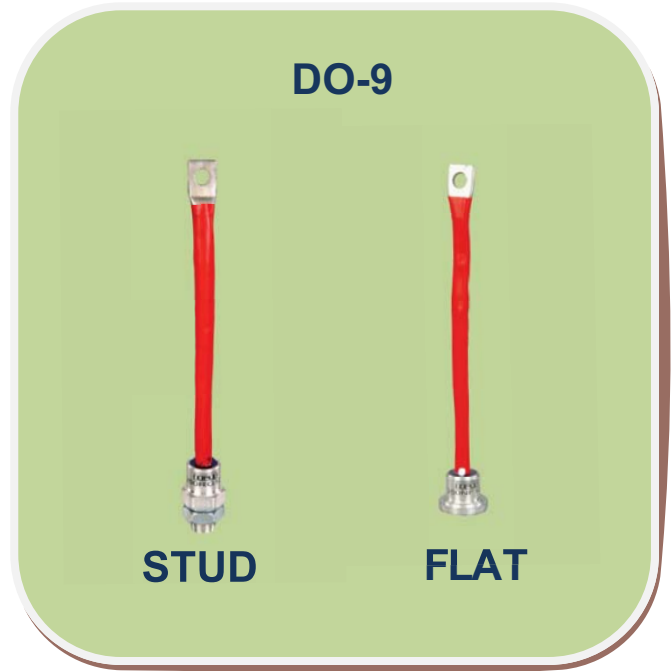
- Available in Normal & Reverse Polarity
- All Diffused Series
- Industrial Grade
- Available in Avalanche Characteristic

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 ⁰ 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 ² t | Max. I ² t rating (non-rep.) for 10 msec | 125000 A ² Sec |
| I _{RRM} | Peak reverse current at T _{vj} = 175 ⁰ C | 50 mA |
| V ₀ R ₀ | T _{vj} =max T _{vj} =max | 0.80 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 0.08 °C/W 0.05 °C/W 200 °C 200 °C |
| Mounting torque | | 30 Nm |
| Weight | Approx. | 260 gms |
| Package Outline | | G,F |

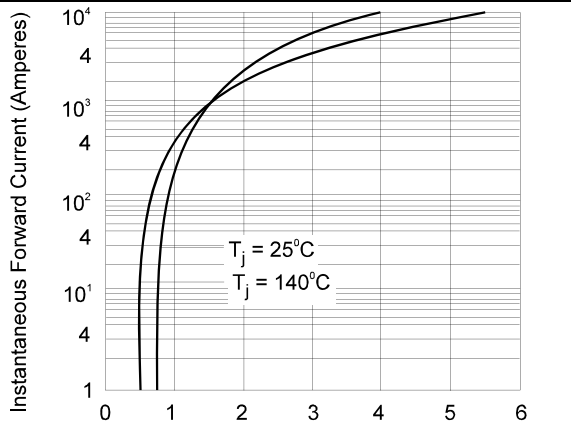


Fig. 1 - Forward Voltage Drop Vs. Forward Current

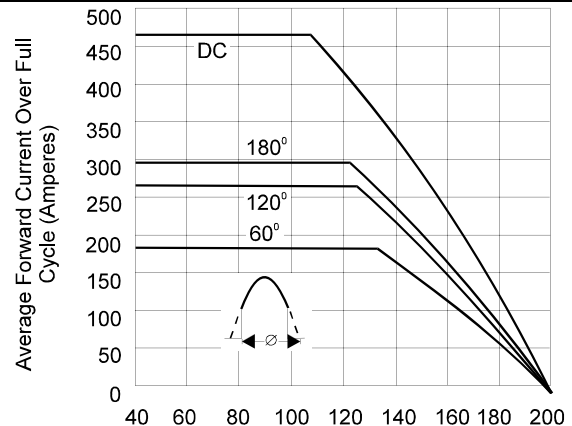


Fig. 2 - Average Forward Current Vs. Case Temperature

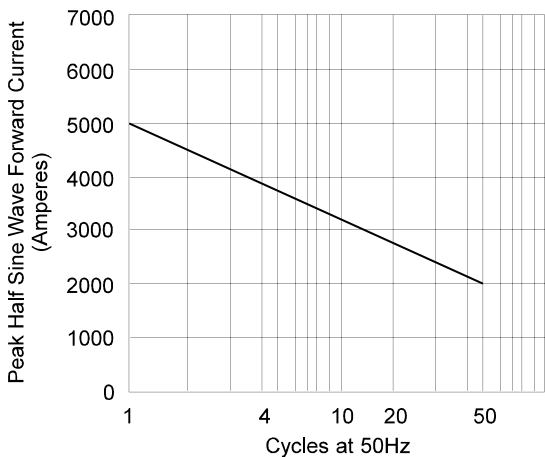


Fig. 3 - Maximum Non Recurrent Surge Current

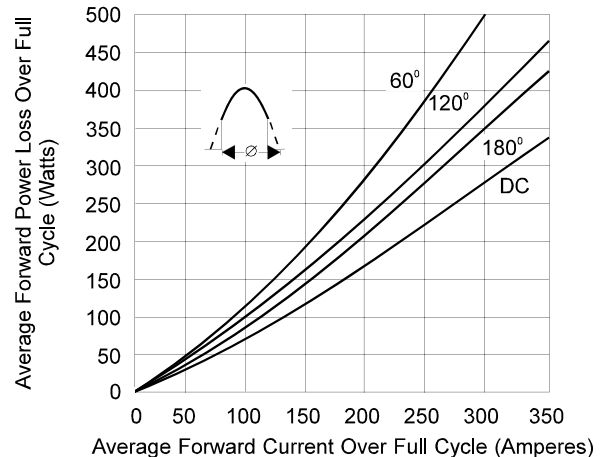


Fig. 4 - Maximum Forward Power Loss Vs. Forward Current

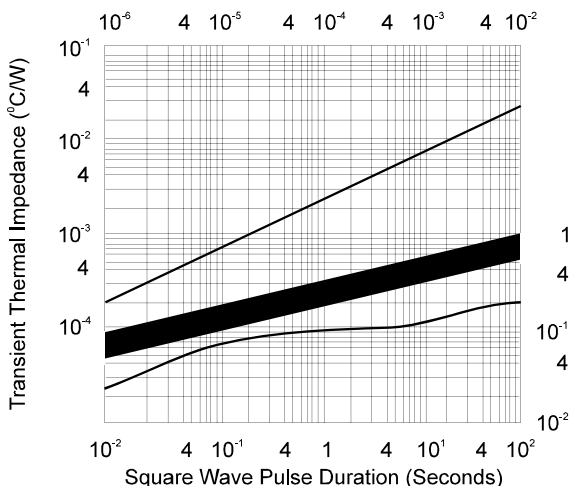


Fig. 5 - Transient Thermal Impedance

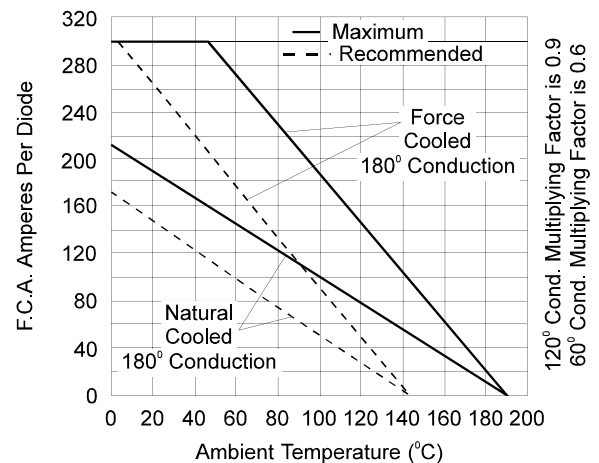
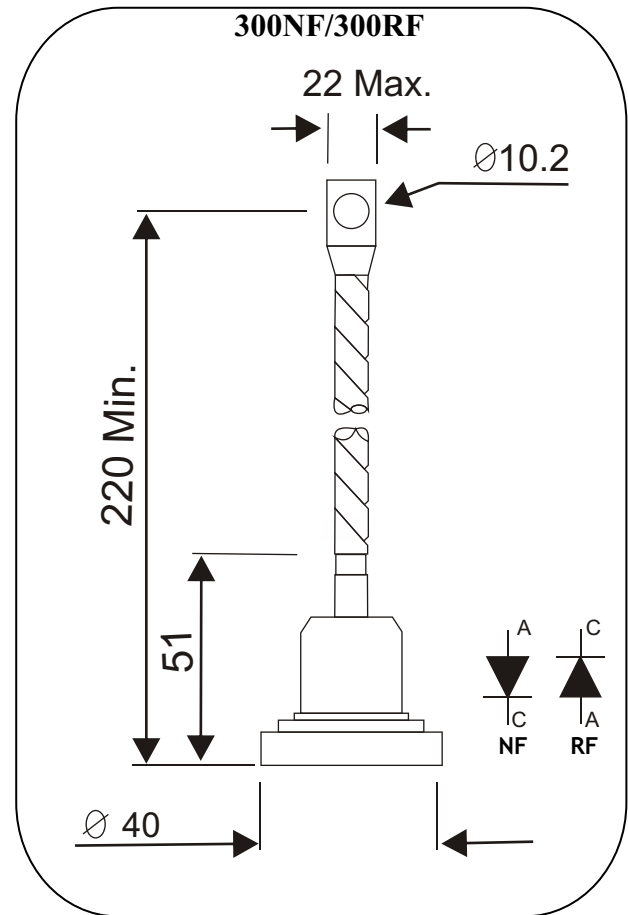
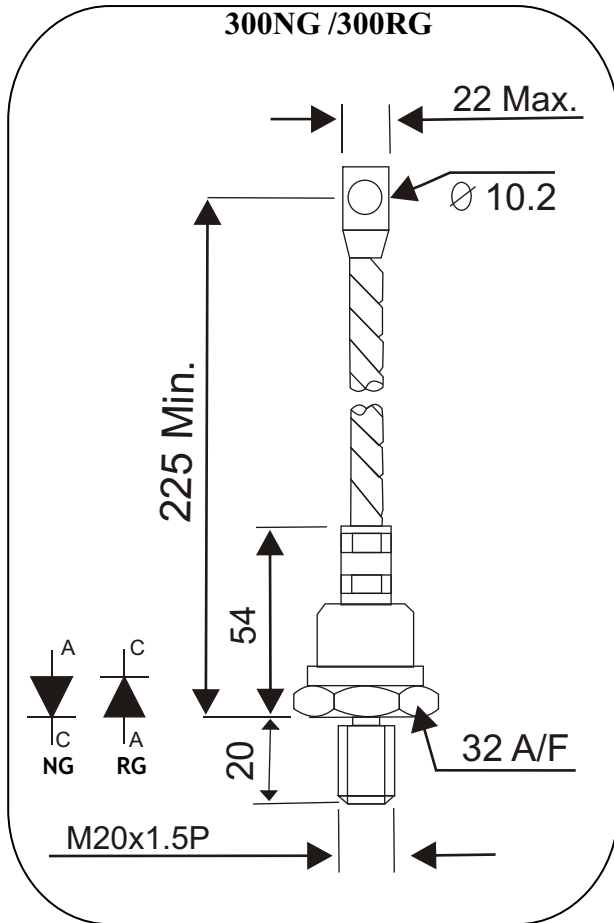


Fig. 6 - Diode Mounted on Heat Sink Type K5 with $\theta_{HA-NC} 0.55^\circ \text{C/W}$, FC 0.13°C/W

PACKAGE OUTLINE



All dimensions are in mm.

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