

**FEATURES**

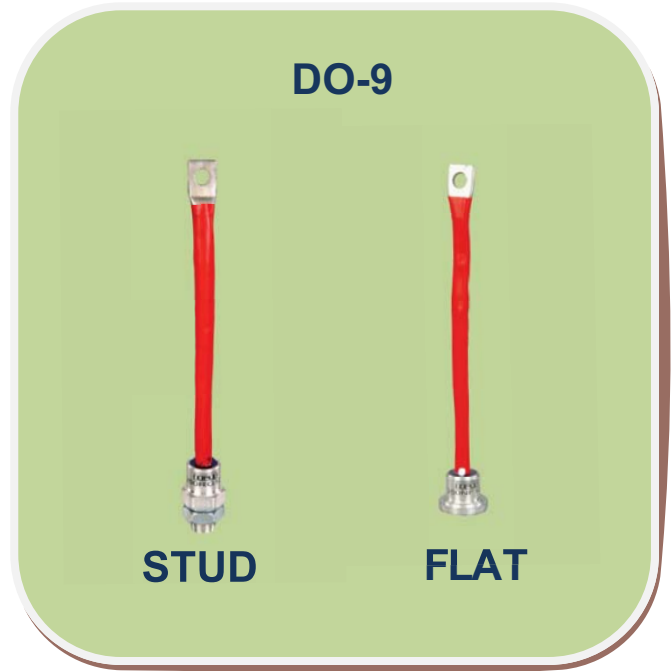
- Available in Normal & Reverse Polarity
- All Diffused Series
- Industrial Grade
- Available in Avalanche Characteristic

**TYPICAL APPLICATIONS**

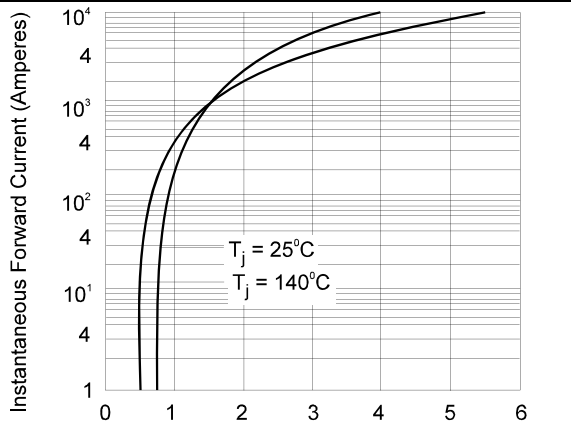
- Power supplies
- Machine tool controls
- Battery chargers
- Welders

**TECHNICAL DATA**

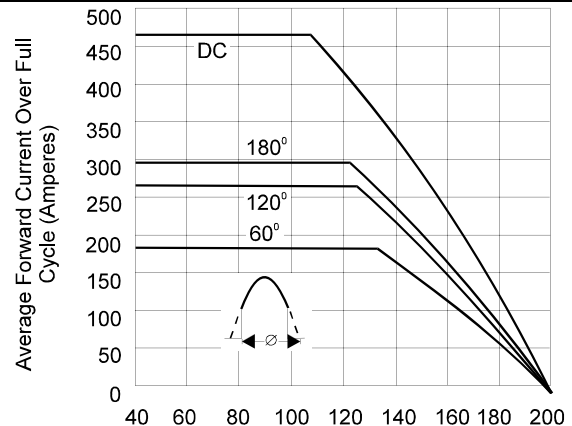
DEVICE TYPE	$V_{RRM}$ (V)	$V_{RSM}$ (V)
300NG40/300RG40 300NF40/300RF40	400	500
300NG120/300RG120 300NF120/300RF120	1200	1300
300NG160/300RG160 300NF160/300RF160	1600	1700



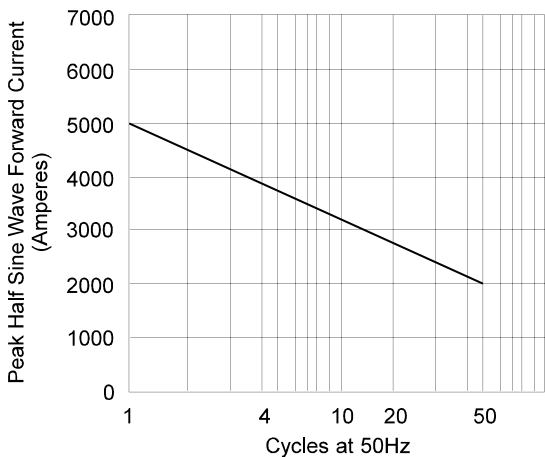
SYMBOL	CONDITIONS	VALUES
$I_{F(AV)}$	Maximum average forward Current $T_c = 130^{\circ}C$	300A
$V_{FM}$	Maximum peak forward Voltage drop @ Rated $I_{F(Peak)}$	1.40 V
$I_{FSM}$	Maximum peak one cycle (non-rep.) surge current 10 msec	5000A
$I^2t$	Max. $I^2t$ rating (non-rep.) for 10 msec	125000 A <sup>2</sup> Sec
$I_{RRM}$	Peak reverse current at $T_{vj} = 175^{\circ}C$	50 mA
$V_0$ $R_0$	$T_{vj} = \text{max}$ $T_{vj} = \text{max}$	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



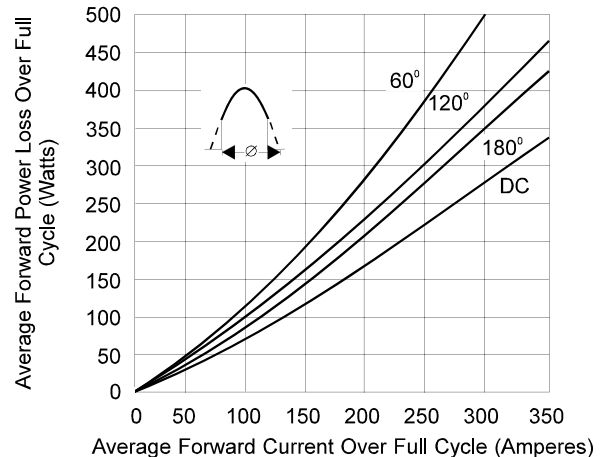
**Fig. 1 - Forward Voltage Drop Vs. Forward Current**



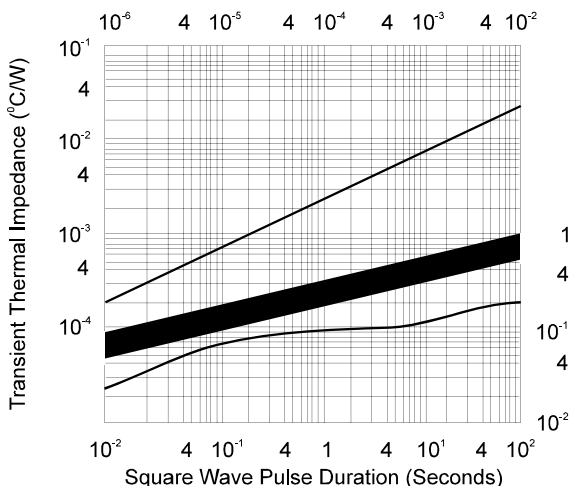
**Fig. 2 - Average Forward Current Vs. Case Temperature**



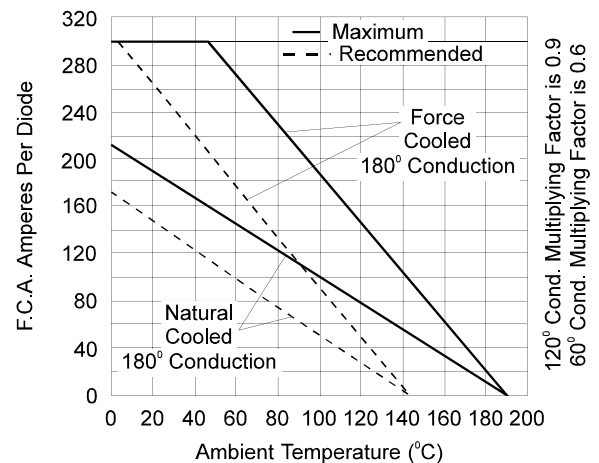
**Fig. 3 - Maximum Non Recurrent Surge Current**



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

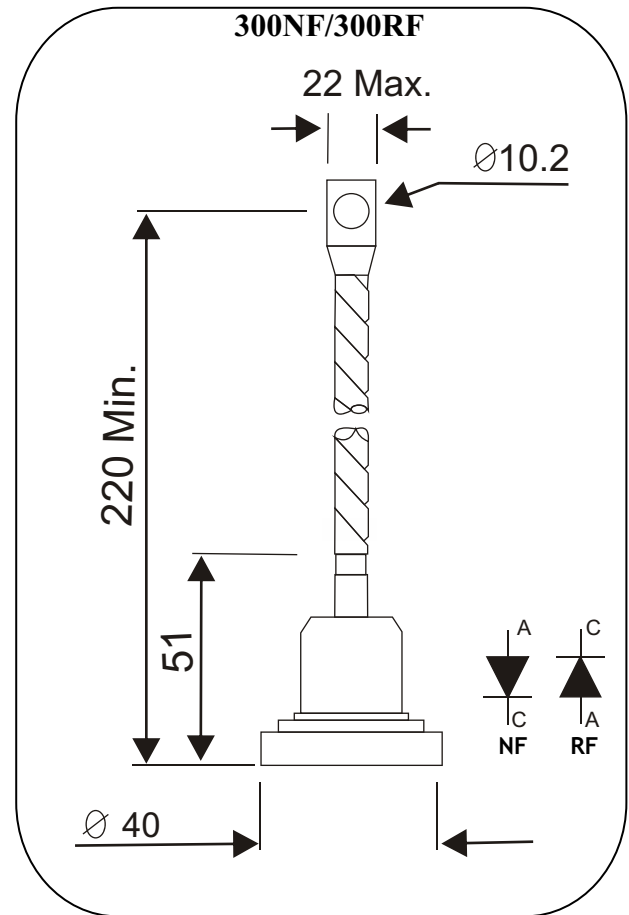
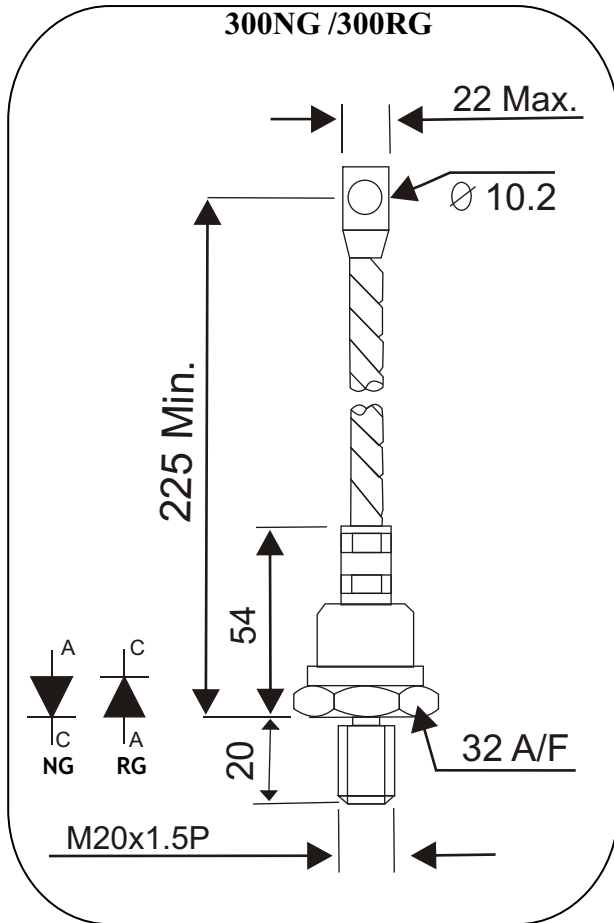


**Fig. 5 - Transient Thermal Impedance**



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

**PACKAGE OUTLINE**



All dimensions are in mm.

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