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POWER DIODE

300NG/RG, 300NF/RF

FEATURES

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



STUD

FLAT

DO9

TYPICAL APPLICATIONS

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

POWER DIODE

**300NG/RG,
300NF/RF**



TECHNICAL DATA

DEVICE TYPE

V_{RRM}
(V)

V_{RSM}
(V)

300NG/RG40 300NF/RF40	400	500
300NG/RG120 300NF/RF120	1200	1300
300NG/RG160 300NF/RF160	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 ² Sec
I_{RRM}	Peak reverse current at $T_{vj} = 175^{\circ}C$	50 mA
V_0 R_0	$T_{vj} = \max$ $T_{vj} = \max$	0.80 V 0.45 m Ω
$R_{th(j-c)}$ $R_{th(c-h)}$ $R_{th(c-h)}$ 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 $^{\circ}C/W$ 0.08 $^{\circ}C/W$ 0.05 $^{\circ}C/W$ 200 $^{\circ}C$ 200 $^{\circ}C$
Mounting torque		30 Nm
Weight	Approx.	260 gms
Package Outline		G,F

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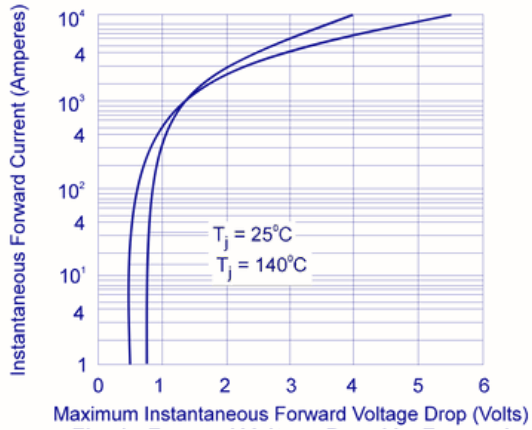


FIG. 1 forward voltage drop vs. forward current

FIG. 2 average forward current vs. case temperature

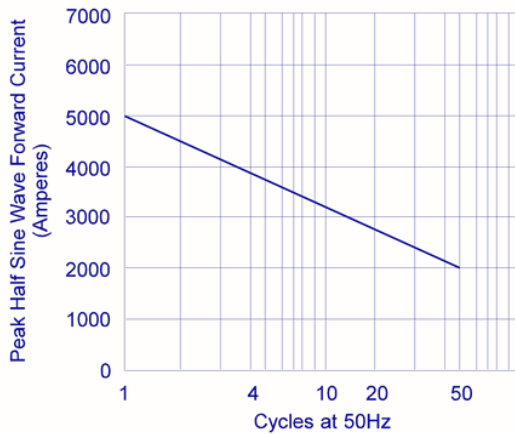
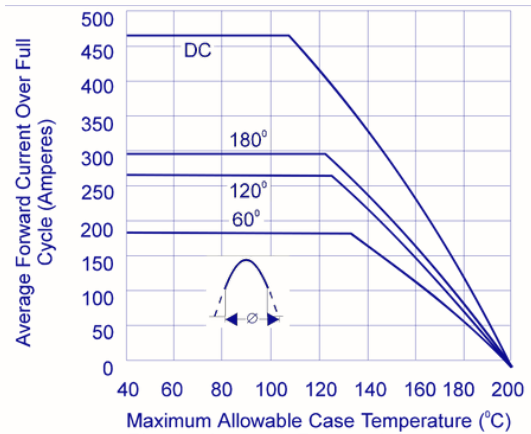


FIG. 3 maximum non recurrent surge current

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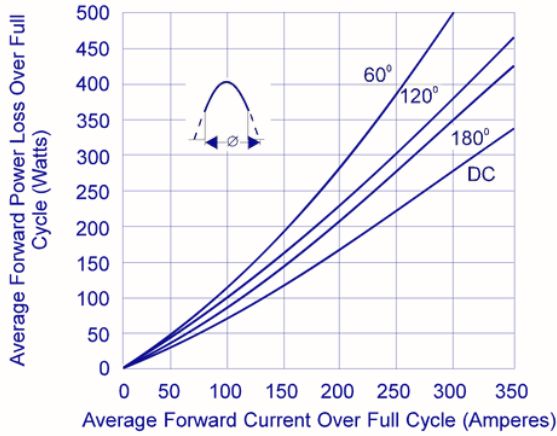


FIG. 4 maximum forward power loss vs. forward current

FIG. 5 transient thermal impedance

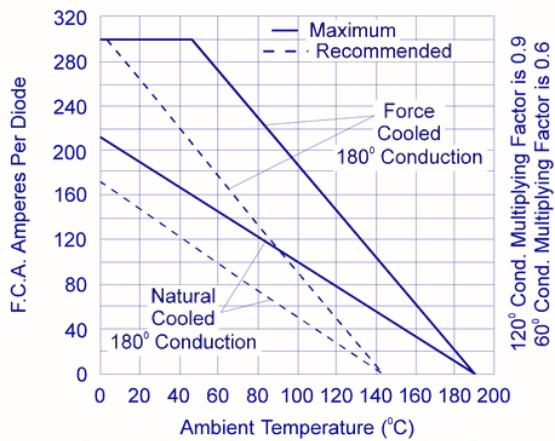
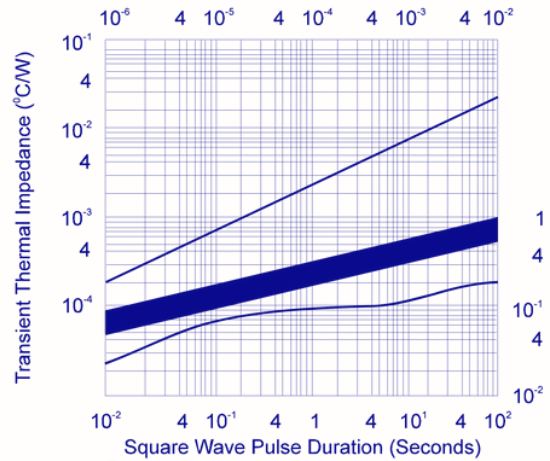
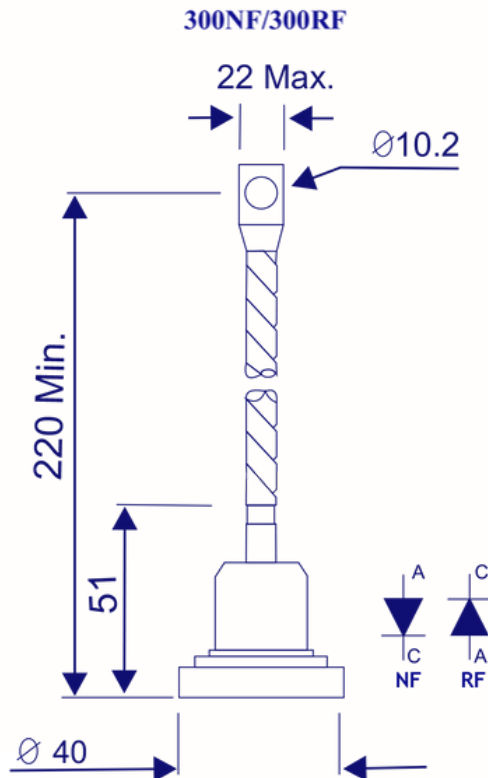
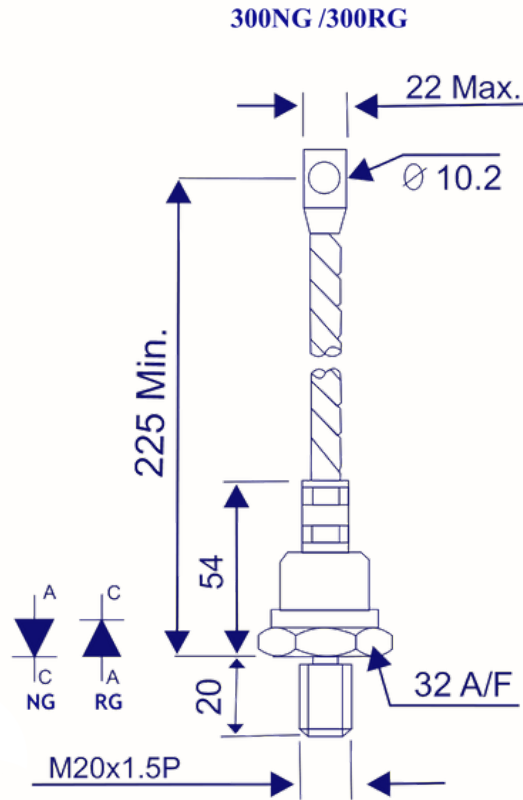


FIG. 6 diode mounted on heat sink
type K5 with $\theta_{HA NC} 0.55^\circ C / W$,
FC $0.13^\circ C / W$

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PACKAGE OUTLINE



all dimensions in mm