INTERNATIONAL
IRI

POWER DIODE

40NB/40RB

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)
40NB40/40RB40	400	500
40NB120/40RB120	1200	1300
40NB160/40RB160	1600	1700

SYMBOL	CONDITIONS	VALUES
$I_{F(AV)}$	Maximum average forward Current T_C = 140^{0}C	40A
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	500 A
I^2t	Max. I^2t rating (non-rep.) for 10 msec	1250 A^2Sec
I_{RRM}	Peak reverse current at T_{vj} = 175^{0}C	10 mA
V_0 R_0	Tvj=max Tvj=max	0.85 V 6.00 mΩ
$R_{th(j-c)}$ $R_{th(c-h)}$ Tvj Tstg	Maximum thermal resistance (Junction to case) Maximum thermal resistance (Case to heat sink) Junction temperature Storage temperature	1.0 °C/W 0.30 °C/W 150 °C 160 °C
Mounting torque		4 Nm
Weight	Approx.	30 gms
Package Outline		B

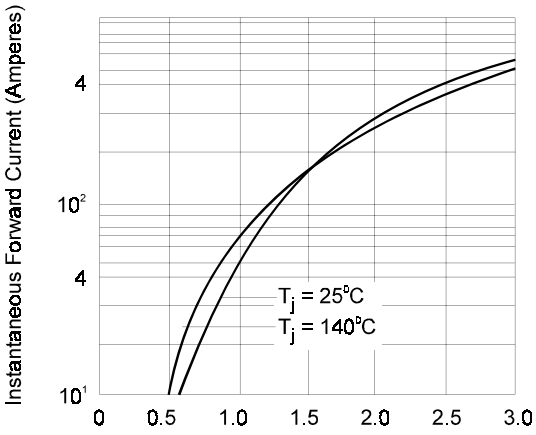


Fig. 1 - Forward Voltage Drop Vs. Forward Current

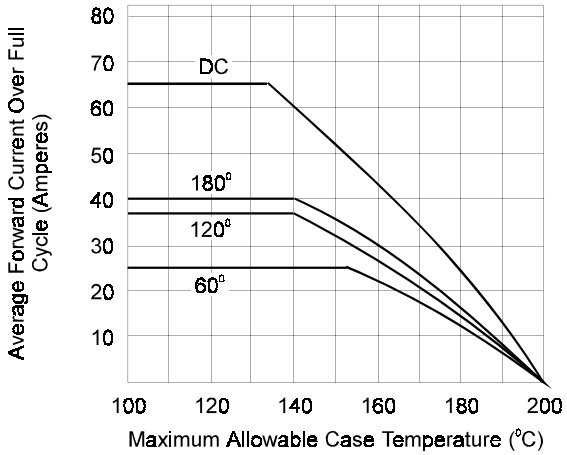


Fig. 2 - Average Forward Current Vs. Case Temperature

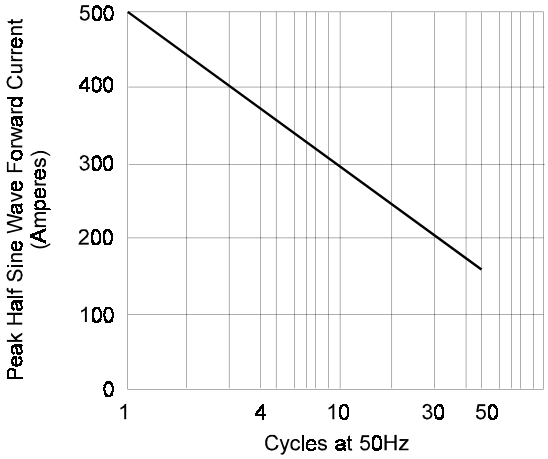


Fig. 3 - Maximum Non Recurrent Surge Current

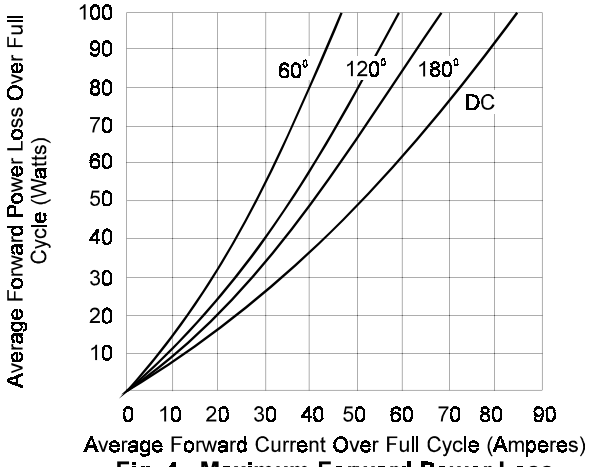


Fig. 4 - Maximum Forward Power Loss Vs. Low Level Forward Current

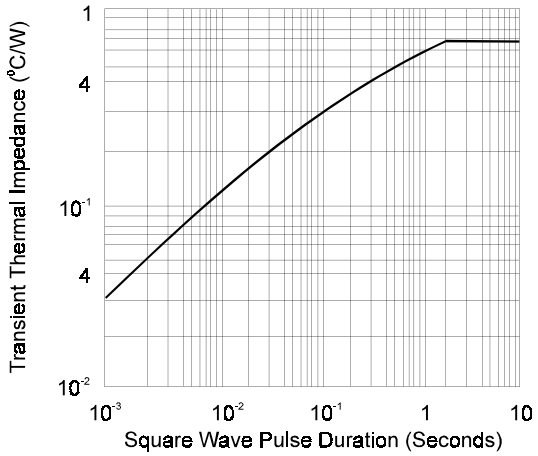


Fig. 5 - Transient Thermal Impedance

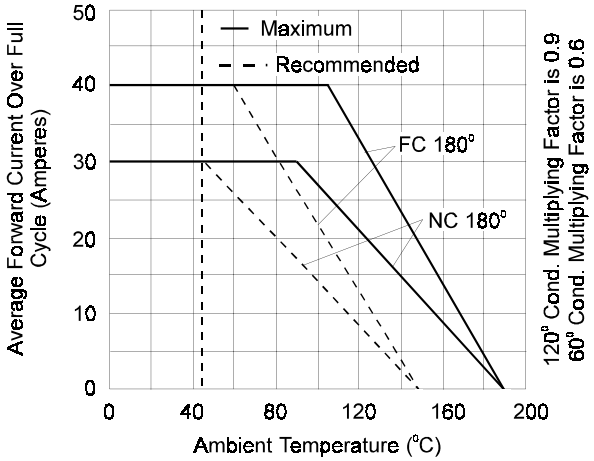
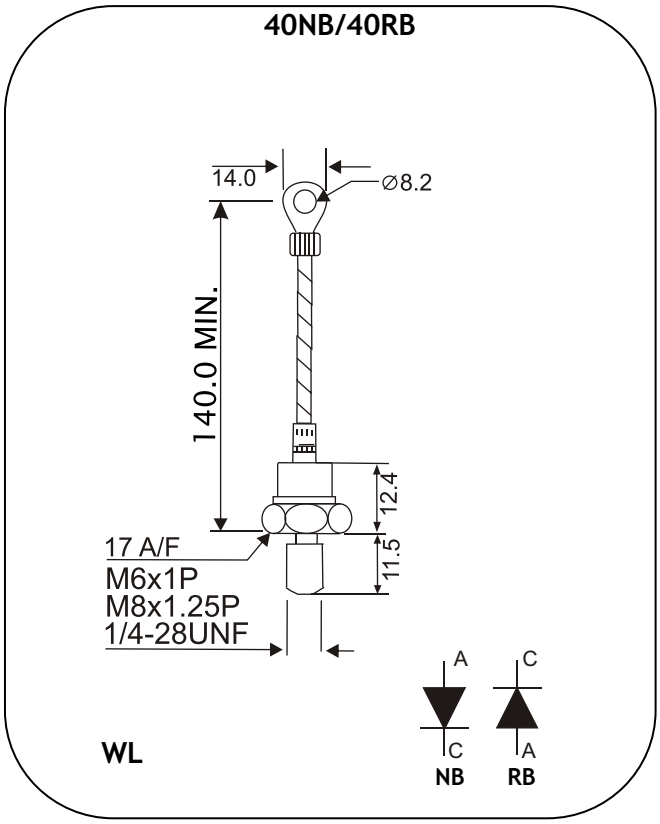
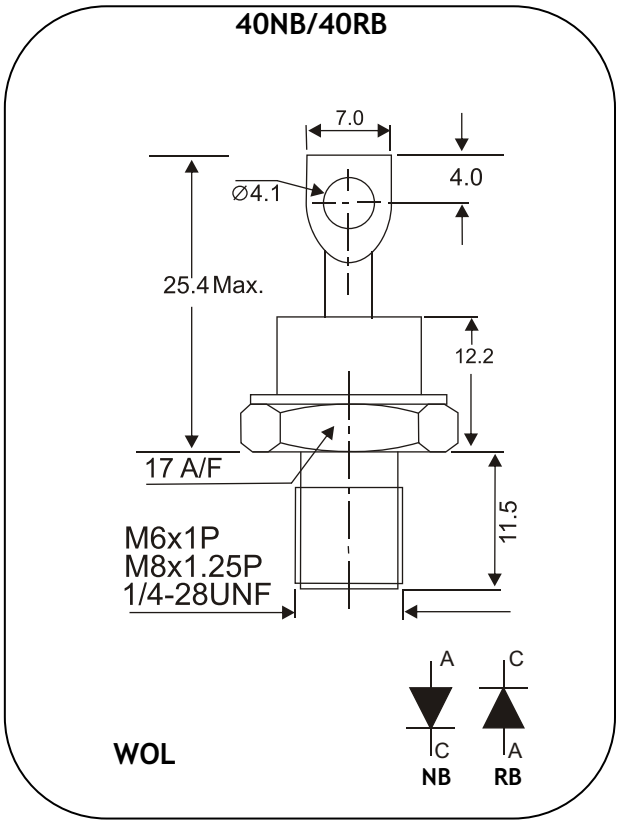


Fig. 6 - Diode Mounted on Heat Sink Type K3 with θHA - NC 2.5° C/W, FC 0.65°C/W

PACKAGE OUTLINE





All dimensions are in mm.

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