

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

TELEPHONE: (973) 376-2922
 (212) 227-6005
 FAX: (973) 376-8960

MR5005 MR5010 MR5020 MR5030 MR5040

MAXIMUM RATINGS

Rating	Symbol	MR5005	MR5010	MR5020	MR5030	MR5040	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	300	400	Volts
Working Peak Reverse Voltage	V_{RWM}						
DC Blocking Voltage	V_R						
Non-Repetitive Peak Reverse Voltage	V_{RSM}	75	150	250	400	450	Volts
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	Volts
Average Rectified Forward Current (Single phase, resistive load, $T_C = 150^\circ\text{C}$)	I_O	←----- 50 -----→					Amp
Non-Repetitive Peak Surge Current (Surge applied at rated load conditions)	I_{FSM}	←----- 600 -----→					Amp
Operating and Storage Junction Temperature Range	T_J, T_{stg}	←----- -65 to +195 -----→					$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	0.8	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
Instantaneous Forward Voltage ($I_F = 157 \text{ Amp}$, $T_J = 25^\circ\text{C}$) ($I_F = 50 \text{ Amp}$, $T_J = 25^\circ\text{C}$)	V_F	-	1.10 0.95	1.18 1.00	Volts
Reverse Current (rated dc voltage) ($T_C = 25^\circ\text{C}$) ($T_C = 150^\circ\text{C}$)	I_R	-	0.05 1.0	0.2 2.0	mA

MECHANICAL CHARACTERISTICS

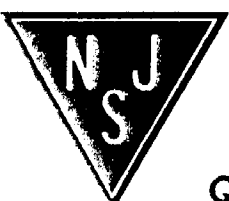
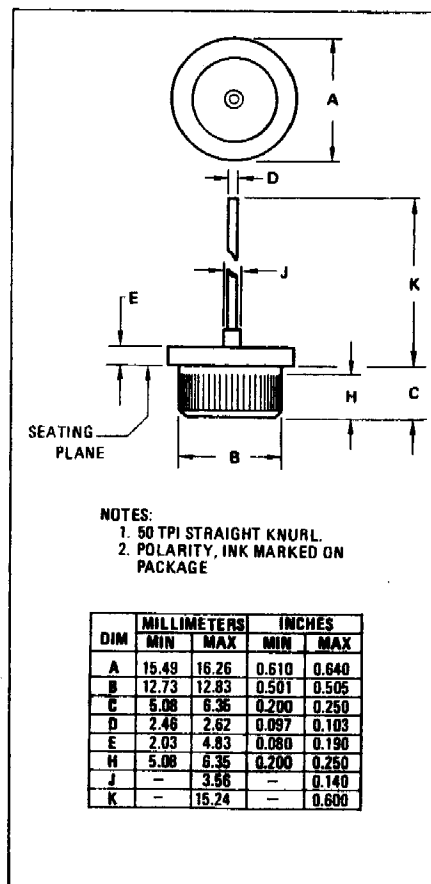
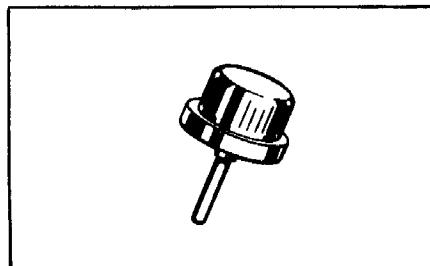
CASE: Welded hermetically sealed construction

FINISH: All external surfaces corrosion resistant, terminals readily solderable

WEIGHT: 9 grams (approx.)

POLARITY: Cathode connected to case (reverse polarity available denoted by Suffix R, i.e.: MR5030R)

MOUNTING POSITION: Any



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors