

New Jersey Semi-Conductor Products, Inc.

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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_B						
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 ($I_F = 157 \text{ Amp}$, $T_J = 25^\circ\text{C}$)	V_F	—	1.10	1.18	Volts
($I_F = 50 \text{ Amp}$, $T_J = 25^\circ\text{C}$)		—	0.95	1.00	
Reverse Current (rated dc voltage) ($T_C = 25^\circ\text{C}$)	I_R	—	0.05	0.2	mA
($T_C = 150^\circ\text{C}$)		—	1.0	2.0	

MECHANICAL CHARACTERISTICS

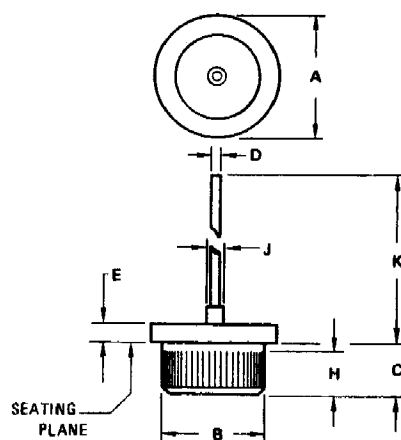
CASE: Welded hermetically sealed construction

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



NOTES:

- 50 TPI STRAIGHT KNURL
- POLARITY, INK MARKED ON PACKAGE

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	15.49	16.26	0.610	0.640
B	12.73	12.83	0.501	0.505
C	5.08	6.35	0.200	0.250
D	2.46	2.62	0.097	0.103
E	2.03	4.83	0.080	0.190
H	5.08	6.35	0.200	0.250
J	—	3.56	—	0.140
K	—	15.24	—	0.600

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Quality Semi-Conductors

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