

New Jersey Semi-Conductor Products, Inc.

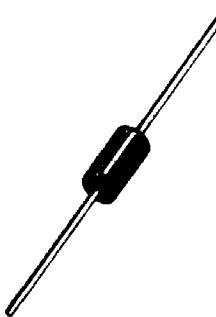
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**MR500 MR501  
MR502 MR504  
MR506 MR508  
MR510**

**STANDARD RECOVERY  
POWER RECTIFIERS**

**50-1000 VOLTS  
3 AMPERE**



**MAXIMUM RATINGS**

Rating	Symbol	MR500	MR501	MR502	MR504	MR506	MR508	MR510	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								Volts
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	
DC Blocking Voltage	V <sub>R</sub>								
Non-Repetitive Peak Reverse Voltage	V <sub>RSM</sub>	75	150	250	450	650	850	1050	Volts
Average Rectified Forward Current (Single phase resistive load, T <sub>J</sub> = 95°C, PC Board Mounting) (1)	I <sub>O</sub>				3.0				Amp
(EIA Standard Conditions L = 1/32", T <sub>L</sub> = 85°C)				8.0					
Non-Repetitive Peak Surge Current (surge applied at rated load conditions)	I <sub>FSM</sub>			100					Amp
(one cycle)									
Operating and Storage Junction Temperature Range (2)	T <sub>J</sub> , T <sub>Stg</sub>			-65 to +175					°C

**THERMAL CHARACTERISTICS**

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient (Recommended Printed Circuit Board Mounting, See Note 2).	R <sub>θJA</sub>	28	°C/W

**ELECTRICAL CHARACTERISTICS**

Characteristic	Symbol	Min	Typ	Max	Unit
Instantaneous Forward Voltage (3) (I <sub>F</sub> = 9.4 Amp, T <sub>J</sub> = 175°C) (I <sub>F</sub> = 9.4 Amp, T <sub>J</sub> = 25°C)	V <sub>F</sub>	—	0.9	1.0	Volts
Reverse Current (rated dc voltage) (3) T <sub>J</sub> = 25°C T <sub>J</sub> = 100°C	I <sub>R</sub>	—	0.1	5.0	μA

(1) Derate for reverse power dissipation.

(2) Derate as shown in Figure 1.

(3) Pulse Test: Pulse Width = 300 μs, Duty Cycle = 2.0%.



Quality Semi-Conductors