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

MR2500 SERIES (SILICON)

MEDIUM-CURRENT SILICON RECTIFIERS

. . . compact, highly efficient silicon rectifiers for medium-current applications requiring:

- High Current Surge — 400 Amperes @ T_J = 175°C
- Peak Performance @ Elevated Temperature — 25 Amperes @ T_C = 150°C
- Low Cost
- Compact, Molded Package — For Optimum Efficiency in a Small Case Configuration

MEDIUM-CURRENT SILICON RECTIFIERS
50 — 1000 VOLTS
25 AMPERES
DIFFUSED JUNCTION

MAXIMUM RATINGS

Characteristic	Symbol	MR 2500	MR 2501	MR 2502	MR 2504	MR 2506	MR 2508	MR 2510	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	Volts
Non-Repetitive Peak Reverse Voltage (halfwave, single phase, 60 Hz peak)	V_{RSM}	60	120	240	480	720	960	1200	Volts
Average Rectified Forward Current (Single phase, resistive load, 60 Hz, T_C = 150°C)	I_O	25							Amp
Non-Repetitive Peak Surge Current (surge applied @ rated load conditions, half wave, single phase, 60 Hz)	I_{FSM}	400 (for 1 cycle)							Amp
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +175							°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case (Single Side Cooled)	$R_{\theta JC}$	1.0	°C/W

ELECTRICAL CHARACTERISTICS

Characteristics and Conditions	Symbol	Max	Unit
Maximum Instantaneous Forward Voltage (i_F = 78.5 Amp, T_C = 25°C)	v_F	1.18	Volts
Maximum Reverse Current (rated dc voltage) T_C = 25°C T_C = 100°C	I_R	 100 500	μA

MECHANICAL CHARACTERISTICS

CASE: Void Free, Transfer Molded.

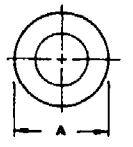
FINISH: All External Surfaces are Corrosion Resistant and the Contact Areas Readily Solderable.

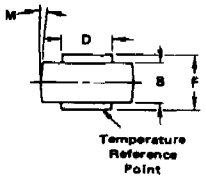
POLARITY: Indicated by dot on Cathode Side

MOUNTING POSITIONS: Any

MAXIMUM TEMPERATURE FOR SOLDERING PURPOSES: 250°C

WEIGHT: 1.8 Grams (Approximately)





DIM	MILLIMETERS MIN	MILLIMETERS MAX	INCHES MIN	INCHES MAX
A	10.03	10.28	0.395	0.405
B	4.19	4.45	0.165	0.175
D	5.54	5.64	0.218	0.222
F	5.84	6.25	0.234	0.246
M	5° NOM		5° NOM	