

MR2502, MR2504, MR2510

MR2504 and MR2510 are Preferred Devices

Medium-Current Silicon Rectifiers

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

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

Mechanical Characteristics:

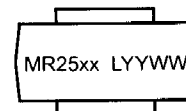
- Case: Epoxy, Molded
- Weight: 1.8 grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminals are Readily Solderable
- Lead Temperature for Soldering Purposes: requires a custom temperature soldering profile
- Polarity: Cathode Polarity Band

**MEDIUM-CURRENT
SILICON RECTIFIERS
25 AMPERES
200-1000 VOLTS
DIFFUSED JUNCTION**



**MICRODE BUTTON
CASE 193**

MARKING DIAGRAM



MR25xx = Device Code
xx = 02, 04 or 10
L = Location Code
YY = Year
WW = Work Week



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

MR2502, MR2504, MR2510

MAXIMUM RATINGS

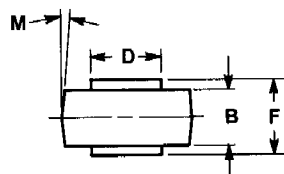
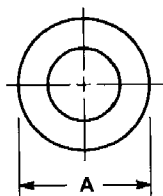
Characteristic	Symbol	MR2502	MR2504	MR2510	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	400	1000	Volts
Non-Repetitive Peak Reverse Voltage (Halfwave, single phase, 60 Hz peak)	V_{RSM}	240	480	1200	Volts
Average Rectified Forward Current (Single phase, resistive load, 60 Hz, $T_C = 150^\circ\text{C}$)	I_O	25			Amps
Non-Repetitive Peak Surge Current (Surge applied at rated load conditions, halfwave, single phase, 60 Hz)	I_{FSM}	400 (for 1 cycle)			Amps
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 65 to +175			$^\circ\text{C}$

THERMAL CHARACTERISTICS

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

ELECTRICAL CHARACTERISTICS

Characteristics and Conditions	Symbol	Max	Unit
Maximum Instantaneous Forward Voltage ($I_F = 78.5$ Amps, $T_C = 25^\circ\text{C}$)	V_F	1.18	Volts
Maximum Reverse Current (rated dc voltage) $T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$	I_R	100 500	μA



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	8.43	8.69	0.332	0.342
B	4.19	4.45	0.165	0.175
D	5.54	5.64	0.218	0.222
F	5.94	6.25	0.234	0.246
M	5° NOM		5° NOM	