New Jersey Semi-Conductor Products, Inc.

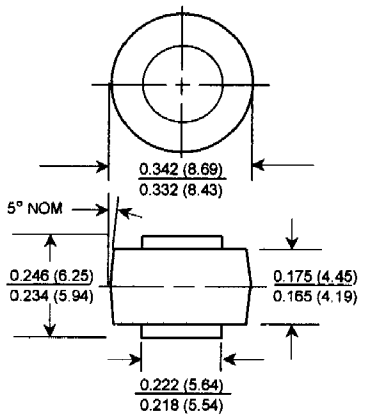
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MR2500 - MR2512

AUTOMOTIVE RECTIFIER DIODES

PRV : 50 - 1200 Volts
Io : 25 Amperes



Dimensions in inches and (millimeter)

FEATURES :
* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop

MECHANICAL DATA :
* Case : Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Terminals : Terminal are readily solderable
* Polarity : Cathode polarity band
* Mounting position : Any
* Weight : 1.624 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	MR2500	MR2501	MR2502	MR2504	MR2506	MR2510	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	1000	Volts
Non–Repetitive Peak Reverse Voltage (Halfwave, single phase, 60 Hz peak)	V_{RSM}	60	120	240	480	720	1200	Volts
Average Rectified Forward Current (Single phase, resistive load, 60 Hz, T_C = 150°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						°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 Amps, 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

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