

**MRL005
MRL010
MRL020
MRL040**



MOTOROLA

Advance Information

LEADLESS SURFACE MOUNTED RECTIFIERS

... subminiature size, surface mounted rectifiers for general-purpose low-power applications.

LEADLESS SURFACE MOUNTED SILICON RECTIFIERS

**50-400 VOLTS
DIFFUSED JUNCTION**

MAXIMUM RATINGS

Rating	Symbol	MRL				Unit
		005	010	020	040	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	Volts
Nonrepetitive Peak Reverse Voltage (halfwave, single phase, 60 Hz)	V_{RSM}	60	120	240	480	Volts
RMS Reverse Voltage	$V_R(RMS)$	35	70	140	280	Volts
Average Rectified Forward Current (single phase, resistive load, 60 Hz, $T_A = 75^\circ C$)	I_O	0.5				Amp
Nonrepetitive Peak Surge Current (surge applied at rated load conditions)	I_{FSM}	10 (for 1 cycle)				Amp
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +175				$^\circ C$

ELECTRICAL CHARACTERISTICS

Characteristic and Conditions	Symbol	Typ	Max	Unit
Maximum Instantaneous Forward Voltage Drop ($I_F = 0.5$ Amp, $T_J = 25^\circ C$)	V_F	0.95	1.1	Volts
Maximum Full-Cycle Average Forward Voltage Drop ($I_O = 0.5$ Amp, $T_C = 75^\circ C$)	$V_{F(AV)}$	—	0.8	Volts
Maximum Reverse Current (rated dc voltage) $T_J = 25^\circ C$ $T_J = 100^\circ C$	I_R	0.05 1.0	10 100	μA
Maximum Full-Cycle Average Reverse Current ($I_O = 0.5$ Amp, $T_C = 75^\circ C$)	$I_{R(AV)}$	—	30	μA


MECHANICAL CHARACTERISTICS

CASE: Glass

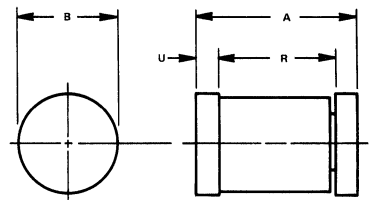
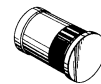
MAXIMUM LEAD TEMPERATURE FOR SOLDERING PURPOSES: 230°C @ end caps for 10 seconds

FINISH: All external surfaces are corrosion-resistant, end caps are readily solderable

POLARITY: Cathode indicated by color band

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DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.30	3.70	0.130	0.146
B	1.60	1.70	0.063	0.067
R	2.49	2.59	0.098	0.102
U	0.41	0.55	0.016	0.022

CASE 362-01