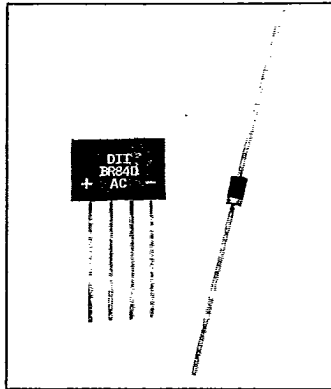




EMHART/ MALLORY CAPACITOR

# Semiconductors



## Bridge and Diode Rectifiers

Mallory offers these Rectifier Diodes and Full-wave Bridge Rectifiers for power supplies or any application where rectification is required. For pricing, reference price sheet no. 600.

### Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability

### Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: MIL-STD-202E method 208C guaranteed
- Mounting position: Any
- Weight: 0.36 grams 2.5A = 0.70 grams

### Features

- Ideal for printed circuit board
- Surge overload rating: 50 amperes peak
- Mounting position: Any
- Weight: 2.74 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%

PART NUMBERS	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	M2.5A	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	1000	V
Maximum Average Forward Rectified Current .375" (9.5 mm) lead length at T <sub>A</sub> = 75°C	1.0							2.5	A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	50							150	A
Maximum Instantaneous Forward Voltage at 1.0A DC	1.1							1.0	V
Maximum DC Reverse Current T <sub>A</sub> = 25°C at Rated DC Blocking Voltage T <sub>A</sub> = 100°C	5.0							5.0	μA
Maximum Full Load Reverse Current Full Cycle Average .375" (9.5 mm) lead length at T <sub>L</sub> = 75°C	30							30	μA
Typical Junction Capacitance (Note 1)	30							60	pF
Typical Thermal Resistance R <sub>θJA</sub>	50							35	°C/W
Operating and Storage Temperature Range T <sub>J</sub> , T <sub>STG</sub>	-65 to +175								°C

NOTES:  
1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

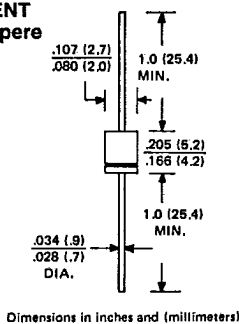
## BRIDGE RECTIFIERS

OPERATING TEMPERATURE RANGE: -55°C to +125°C  
STORAGE TEMPERATURE RANGE: -55°C to +150°C

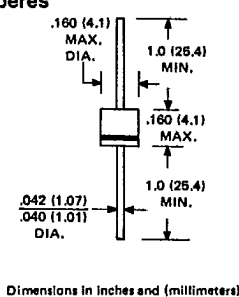
Part Number	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ 25°C T <sub>A</sub>	Maximum Forward Voltage @ 25°C T <sub>A</sub>	
	PRV V <sub>PK</sub>	I <sub>O</sub> @ T <sub>A</sub> A <sub>AV</sub>	°C	I <sub>FM</sub> (Surge) A <sub>PK</sub>	I <sub>R</sub> μA <sub>DC</sub>	I <sub>FM</sub> A <sub>PK</sub>	V <sub>FM</sub> V <sub>PK</sub>
FW50	50	2.0	75	50	10	1.0	1.0
FW100	100	2.0	75	50	10	1.0	1.0
FW200	200	2.0	75	50	10	1.0	1.0
FW400	400	2.0	75	50	10	1.0	1.0
FW600	600	2.0	75	50	10	1.0	1.0
FW800	800	2.0	75	50	10	1.0	1.0
FW1000	1000	2.0	75	50	10	1.0	1.0
FWLC50	50	4.0	50	200	10	3.0	1.0
FWLC100	100	4.0	50	200	10	3.0	1.0
FWLC200	200	4.0	50	200	10	3.0	1.0
FWLC400	400	4.0	50	200	10	3.0	1.0
FWLC600	600	4.0	50	200	10	3.0	1.0
FWLC800	800	4.0	50	200	10	3.0	1.0
FWLC1000	1000	4.0	50	200	10	3.0	1.0

4.0 AMPERES / 2.0 AMPERES

## CURRENT 1.0 Ampere



## 2.5 Amperes



## CASE OUTLINE FOR FULL WAVE BRIDGES

