

**FAST RECOVERY RECTIFIER**

VOLTAGE RANGE: 50 TO 1000 VOLTS

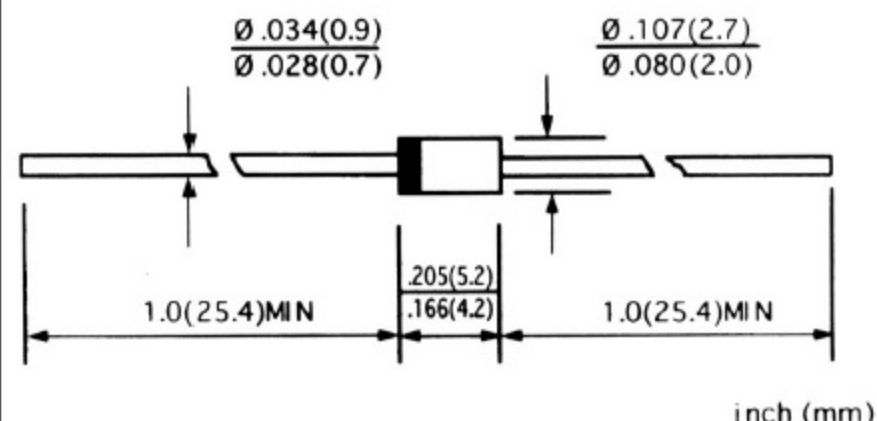
CURRENT: 1.0 AMPERES

**FEATURES**

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-O

**MECHANICAL DATA**

Case: JEDEC DO-41, molded plastic  
 Terminals: Axial leads, solder able per MIL-STD-202, Method 208  
 Polarity: Color band denotes cathode  
 Weight: 0.012 ounce, 0.34 gram  
 Mounting position: Any

**DO-41**

**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%.

Parameters		FR 101	FR 102	FR 103	FR 104	FR 105	FR 106	FR 107	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 9.5mm Lead Length, @ T <sub>A</sub> =75°C	I <sub>(AV)</sub>	1.0							A
Peak Forward Surge Current @T <sub>J</sub> =125°C 8.3ms Single half-sine-wave superimposed on rated load	I <sub>FSM</sub>	30							A
Maximum Instantaneous Forward Voltage at 1.0A	V <sub>F</sub>	1.3							V
Maximum Reverse Current @T <sub>A</sub> =25°C at Rated DC Blocking Voltage @T <sub>A</sub> =100°C	I <sub>R</sub>	5 100							μA
Maximum Reverse Recovery Time(Note 1)	t <sub>rr</sub>	150				250	500		ns
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	15				8			pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	20							°C/W
Operating Junction Temperature Range	T <sub>j</sub>	-65---+150							°C
Storage Temperature Range	T <sub>STG</sub>	-65---+150							°C

 NOTE: 1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ 

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal Resistance Junction to Ambient.

# RATINGS AND CHARACTERISTIC CURVES

