

FR101 THRU FR107

FAST RECOVERY RECTIFIERS

◆ Features

- » The plastic package carries Underwriters Laboratory
- » Flammability Classification 94V-0
- » Fast switching for high efficiency
- » Low reverse leakage
- » High forward surge current capability
- » High temperature soldering guaranteed: 250 C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

◆ Mechanical Data

- » Case: JEDEC DO-41 molded plastic body
- » Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- » Polarity: Color band denotes cathode end
- » Mounting Position: Any
- » Weight: 0.27 grams
- » Reverse Voltage: 50V to 1000V
- » Forward Current : 1 A

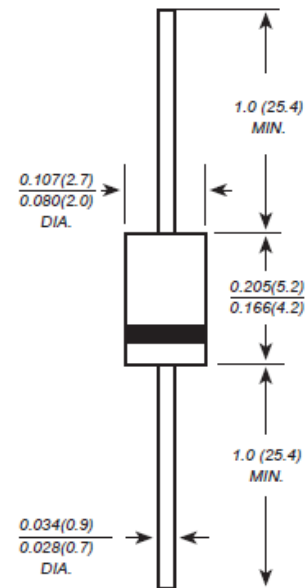
◆ Electrical Characteristic

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

TYPE NUMBER	Symbols	FR101	FR102	FR103	FR104	FR105	FR106	FR107	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length at $T_a=75^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.3							Volts
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	I_R	5.0							μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	150			250		500		ns
Typical Junction Capacitance (Note 2)	C_J	15.0							pF
Typical thermal resistance (NOTE 3)	R_{qJA}	50.0							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 ~ +150							$^\circ\text{C}$

Note: 1. Reverse recovery condition $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

DO-41



Dimensions in inches and (millimeters)

◆ Rating And Characteristic Curves

