

**FR101 THRU FR107**  
**FAST RECOVERY RECTIFIERS**  
Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

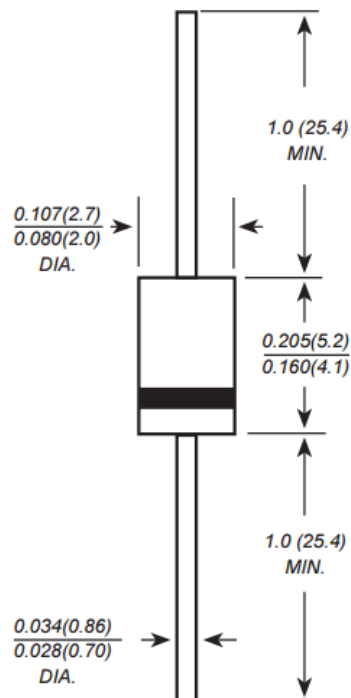
**Features:**

- 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: 260 C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

**Mechanical Data:**

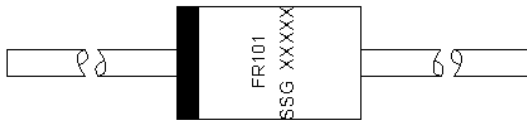
- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounce, 0.33 grams

**Mechanical Dimensions: In Inches/mm**



**DO-41**

**MARKING DIAGRAM**



Where XXXXX is YYWWL

FR101 = Part Name  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**ORDERING INFORMATION**

Device	Suffix	Package	Shipping
FR101-FR107	TR	DO-41 (Pb-Free)	5000pcs / reel
FR101-FR107	TA	DO-41 (Pb-Free)	5000pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.



**Maximum Ratings and Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

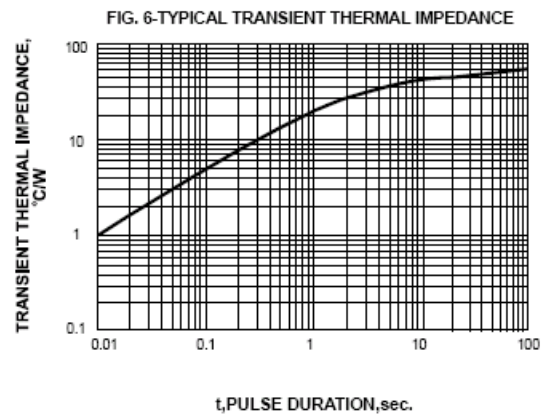
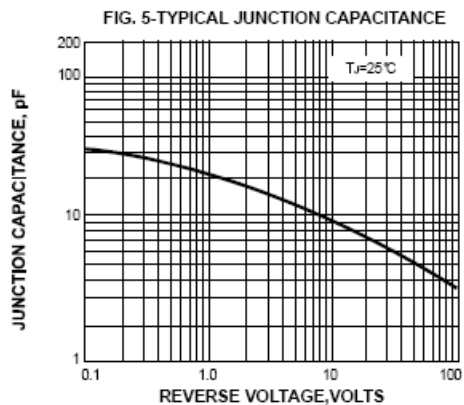
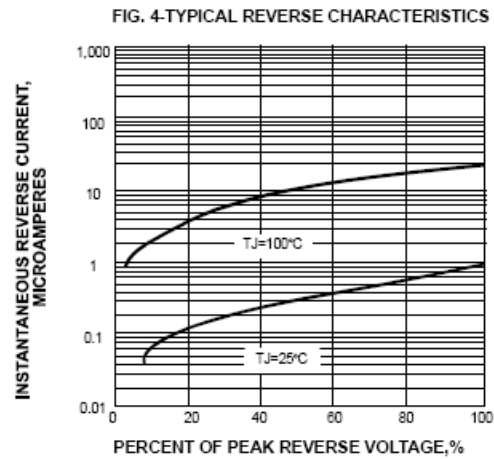
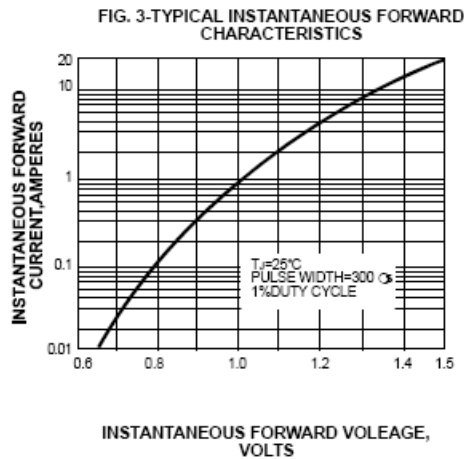
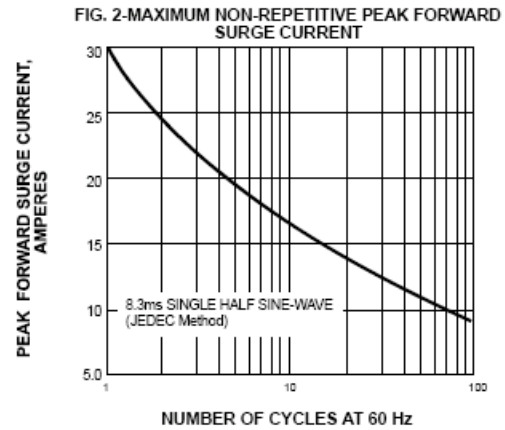
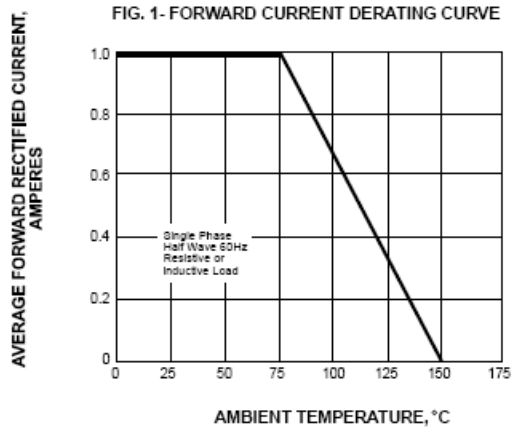
Characteristic	Symbol	FR101	FR102	FR103	FR104	FR105	FR106	FR107	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at $T_A=75^{\circ}\text{C}$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.3							V
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 50.0							$\mu\text{A}$
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)	$R_{\theta JA}$	50.0							$^{\circ}\text{C}/\text{W}$
Junction Temperature	$T_J$	-65 to +150							$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150							$^{\circ}\text{C}$

Note: 1. Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

2. Measured at 1.0 MHz 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

**RATINGS AND CHARACTERISTIC CURVES FR101 THRU FR107**





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