



XIN SEMICONDUCTOR  
ISO9002

HQ MARKING

# FR301 THRU FR309

**FAST RECOVERY RECTIFIER**  
Reverse Voltage: 50 to 1400 Volts  
Forward Current: 3.0Amperes

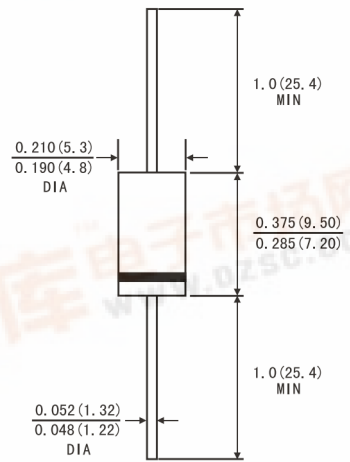
## FEATURES

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability

## MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041 OUNCE, 1.18 grams

## DO-201AD



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.)

Type Number	Symbols	FR 301	FR 302	FR 303	FR 304	FR 305	FR 306	FR 307	FR 308	FR 309	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	1200	1300	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	840	910	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	1200	1300	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm)lead length at T <sub>A</sub> =75°C	I <sub>(AV)</sub>	3.0									Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200									Amps
Maximum Instantaneous Forward Voltage at 3.0A	V <sub>F</sub>	1.3									Volts
Maximum DC Reverse Current at rated DC blocking voltage	T <sub>A</sub> =25°C	10									μA
	T <sub>A</sub> =55°C	150									
Maximum reverse recovery time(Note1)	T <sub>rr</sub>	150				200				ns	
Typical junction capacitance(Note2)	C <sub>J</sub>	65									pF
Operating junction and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +150									°C

Note: 1. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts.

