

FR301 THRU FR307

Fast Recovery Rectifiers Reverse Voltage - 50 to 1000 V Forward Current - 3 A

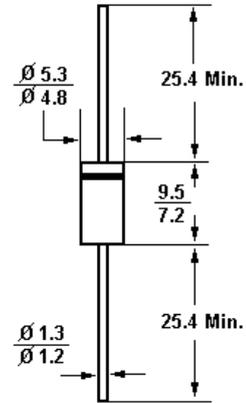
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Fast switching for high efficiency.
- Construction utilizes void-free molded plastic technique.
- 3.0 ampere operation at $T_a=75^\circ\text{C}$ with no thermal runaway.
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs (2.3kg) tension.

Mechanical Data

- **Case:** Molded plastic, DO-201AD.
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, method 2026.
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any.

DO-201AD



Dimensions in mm

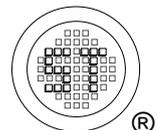
Absolute Maximum Ratings and Characteristics @ $T_a=25^\circ\text{C}$ unless otherwise specified.

Symbols		FR301	FR302	FR303	FR304	FR305	FR306	FR307	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
Average Forward Rectified Current at $T_a = 75^\circ\text{C}$	$I_{F(AV)}$	3							A
Peak Forward Surge Current 8.3ms single half sine-wave (MIL-STD-750D 4066 method)	I_{FSM}	150							A
Maximum Instantaneous Forward Voltage ³⁾ at $I_{FM} = 3\text{ A}$	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 55^\circ\text{C}$	I_R	10 150							μA
Maximum Reverse Recovery Time ¹⁾	T_{rr}	150				250	500		nS
Typical Junction Capacitance ²⁾	C_J	65							pF
Operating and Storage Temperature Range	T_J, T_{Stg}	-55 to +150							$^\circ\text{C}$

¹⁾ Reverse recovery test conditions: $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.

²⁾ Measured at 1MHz and applied reverse voltage of 4V.

³⁾ Pulse test: pulse width 300 μs , Duty cycle 1%.



FR301 THRU FR307

