

FR301 THRU FR307

FAST RECOVERY RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

Forward Current – 3.0 Ampere

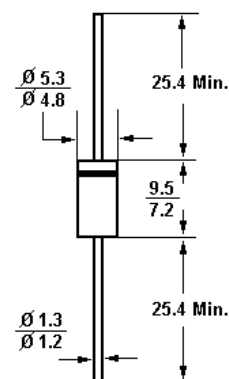
Features

- 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

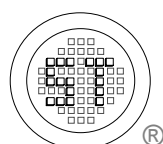


Dimensions in mm

Absolute Maximum Ratings and Characteristics @ 25°C unless otherwise specified.

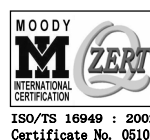
	Symbols	FR301	FR302	FR303	FR304	FR305	FR306	FR307	FR307 -STR	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1000	Volts
Average forward rectified current at $T_A = 75^{\circ}\text{C}$	$I_{(AV)}$	3								Amps
Peak forward surge current 8.3mS single half sine-wave	I_{FSM}	200								Amps
Maximum instantaneous forward voltage at $I_{FM}=3.0\text{A}$, $T_A=25^{\circ}\text{C}$ (Note 3)	V_F	1.3								Volts
Maximum DC reverse current $T_A = 25^{\circ}\text{C}$ at rated DC blocking voltage $T_A = 55^{\circ}\text{C}$	I_R	10 150								μA
Maximum reverse recovery time (Note 1)	T_{rr}	150				250	500	250		nS
Typical junction capacitance (Note 2)	C_J	65								pF
Operating and storage temperature range	T_J, T_S	-65 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 4volts
- 3) Pulse test: pulse width 300 uSec, Duty cycle 1%.



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, acompany
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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116



ISO 9001 : 2000
Certificate No. 5500-1000-40-000-000

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