

SF31 THRU SF38

SUPER FAST RECTIFIERS

Reverse Voltage – 50 to 600 Volts

Forward Current – 3.0 Amperes

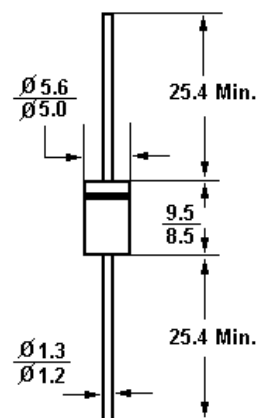
DO-201AD

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Super 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-201AD molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any



Dimensions in mm

Absolute Maximum Ratings and Characteristics

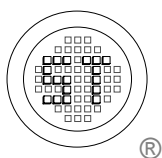
Rating at 25°C ambient temperature unless otherwise specified. Single-phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	SF31	SF32	SF33	SF34	SF35	SF36	SF38	Units
Repetitive Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	V
DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V
Average Forward Rectified Current 0.375"(9.5mm) Lead Length at T _A = 55 °C	I _(AV)	3.0							A
Peak Forward Surge Current , 8.3mS Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	125							A
Instantaneous Forward Voltage @ 3.0A	V _F	0.95				1.25			V
DC Reverse Current @ T _A = 25 °C	I _R	10							uA
at Rated DC Blocking Voltage @ T _A = 100 °C	I _R	50							uA
Reverse Recovery Time (Note 1)	T _{rr}	35							nS
Typical Junction Capacitance (Note 2)	C _J	100				50			pF
Typical Thermal Resistance (Note 3)	R _{JA}	30							°C/W
Operating Junction Temperature Range	T _J	-65 to +150							°C
Storage Temperature Range	T _S	-65 to +150							°C

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

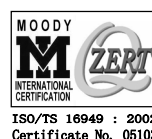
(2) Measured at 1 MHz and applied reverse voltage of 4 Volts D.C

(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P. C. B. mounted



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