

SF31 THRU SF38

SUPER FAST RECTIFIERS

Reverse Voltage – 50 to 600 Volts

Forward Current – 3.0 Amperes

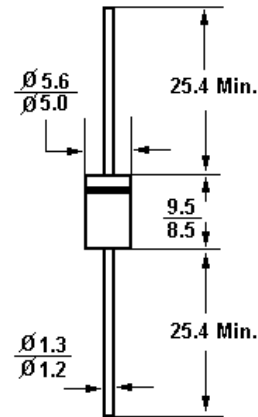
DO-201AD

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

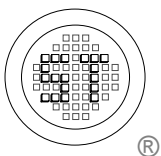
Rating at 25°C ambient temperature unless otherwise specified. Single-phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	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 $T_A = 55^\circ C$	$I_{(AV)}$	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 @ $T_A = 25^\circ C$	I_R	10							μA
at Rated DC Blocking Voltage @ $T_A = 100^\circ C$	I_R	50							μA
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							$^\circ C/W$
Operating Junction Temperature Range	T_J	-65 to +150							$^\circ C$
Storage Temperature Range	T_S	-65 to +150							$^\circ C$

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

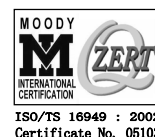
(2) Measured at 1 MHz and applied reverse voltage of 4 Volts D.C

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



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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116



ISO 9001 : 2000
Certificate No. 655-195-002-001

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