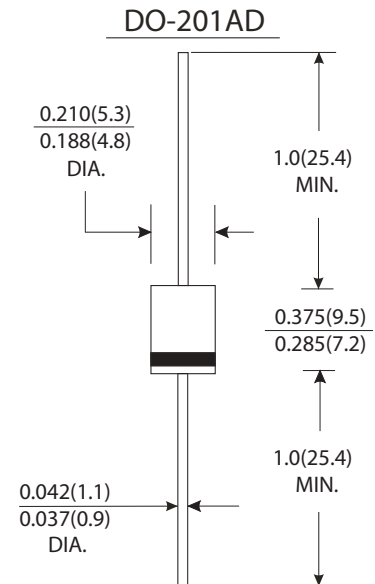


Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Super fast recovery time
- Good for use in switching mode circuits
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

Mechanical Data

- Case : JEDEC DO-201AD molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.042 ounce, 1.18 gram



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

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

	Symbols	SF31	SF32	SF33	SF34	SF35	SF36	SF37	Units
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at T _A =55 °C	I _(AV)	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	125							Amps
Maximum instantaneous forward voltage at 3.0A	V _F	0.95			1.30		1.70		Volts
Maximum DC reverse current at rated DC blocking voltage	T _A =25 °C	5.0							µA
	T _A =100 °C	100							
Maximum reverse recovery time (Note 1)	T _{rr}	35							ns
Typical junction capacitance (Note 2)	C _J	100			80				pF
Operating junction and storage temperature range	T _J	-55 to +125							°C
	T _{STG}	-55 to +150							

Notes:

- (1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES SF31 THRU SF37

FIG. 1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

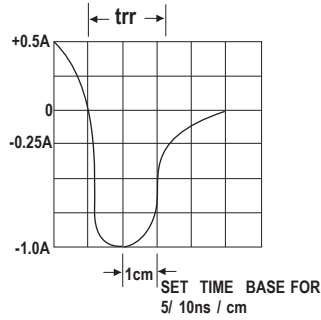
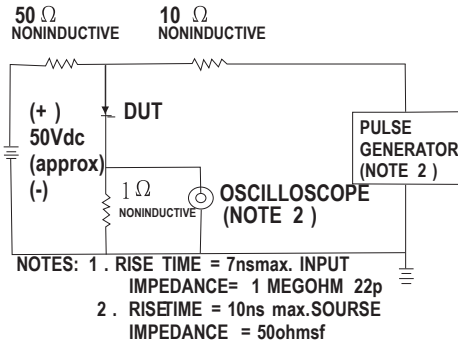


FIG. 2 - MAXIMUM AVERAGE FORWARD CURRENT DERATING

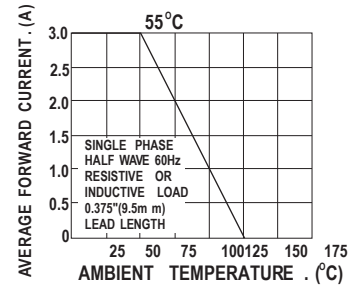


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

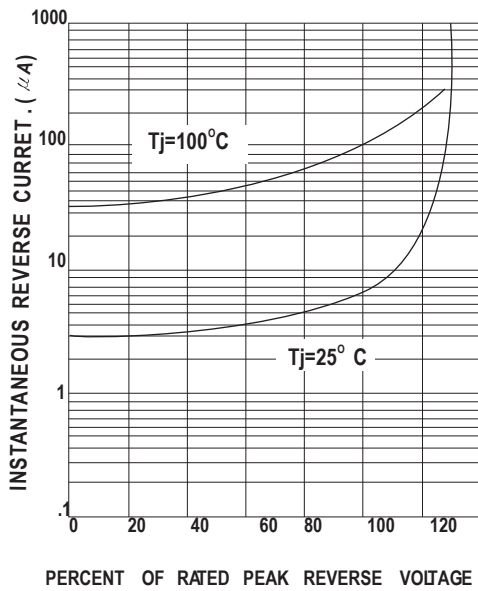


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

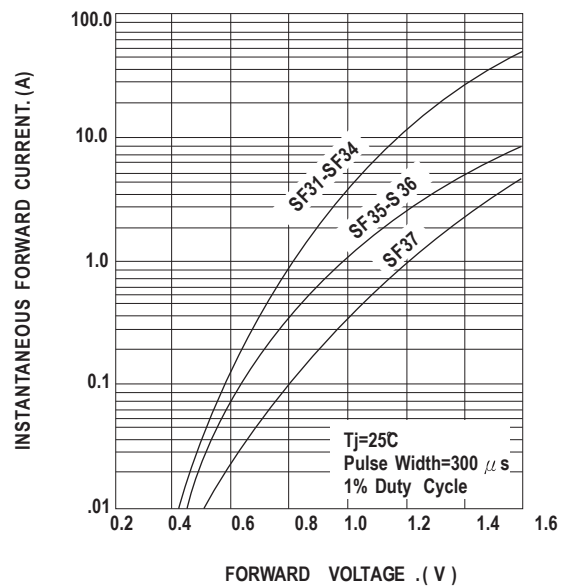


FIG. 5 - MAXIMUM NON- REPETITIVE FORWARD SUREG CURRENT

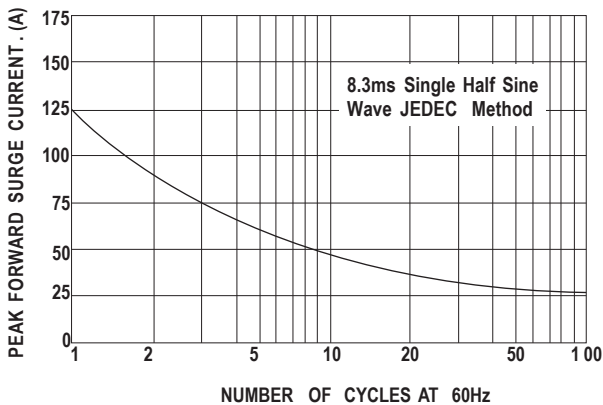


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

