



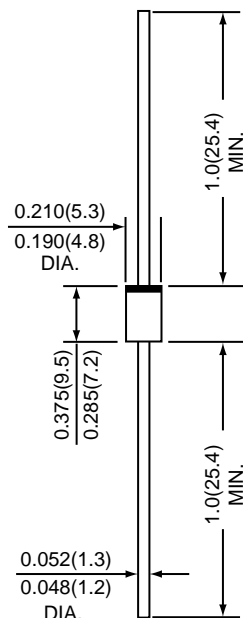
# SF31 THRU SF36

## SUPER FAST RECTIFIER

Reverse Voltage - 50 to 400 Volts

Forward Current - 3.0 Amperes

DO-201AD



\*Dimensions in inches and (millimeters)



### FEATURES

- \* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- \* Super fast switching speed
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* High reliability
- \* Good for switching mode circuit

### MECHANICAL DATA

**Case :** JEDEC DO-201AD molded plastic  
**Terminals :** Plated axial leads , solderable per MIL-STD-750, Method 2026  
**Polarity :** Color band denotes cathode end  
**Mounting Position :** Any  
**Weight :** 0.04 ounces , 1.12 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>	SYMBOLS	SF31	SF32	SF33	SF34	SF35	SF36	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	150	200	300	400	Volts
Maximum RMS voltage	VRMS	35	70	105	140	210	280	Volts
Maximum DC blocking voltage	VDC	50	100	150	200	300	400	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at TL=55°C	I(AV)	3.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	125						Amps
Maximum instantaneous forward voltage at 3.0 A	VF	0.95				1.25		Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5.0 50						uA
Maximum reverse recovery time (NOTE 1)	trr	35						nS
Typical junction capacitance (NOTE 2)	CJ	50				30		pF
Operating junction and storage temperature range	TJ,TSTG	-65 to +150						°C

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

# RATINGS AND CHARACTERISTIC CURVES SF31 THRU SF36

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

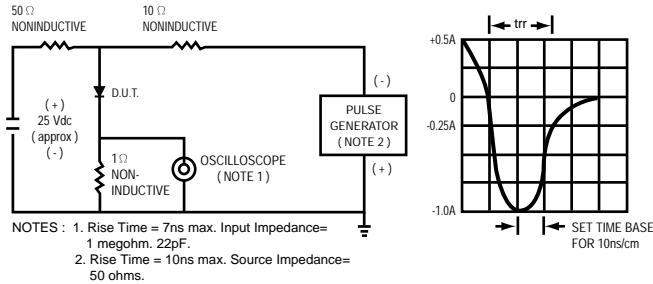


FIG.2 - FORWARD CURRENT DERATING CURVE

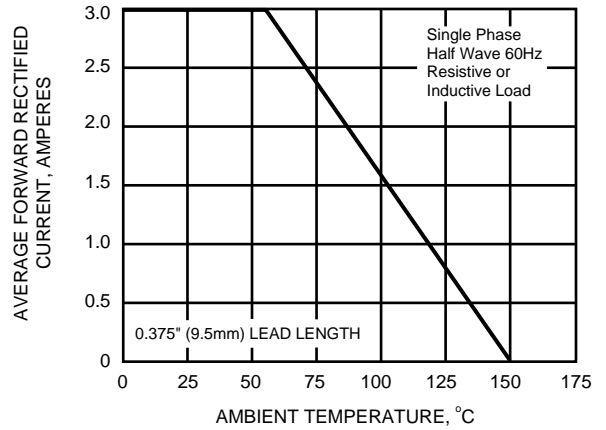


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

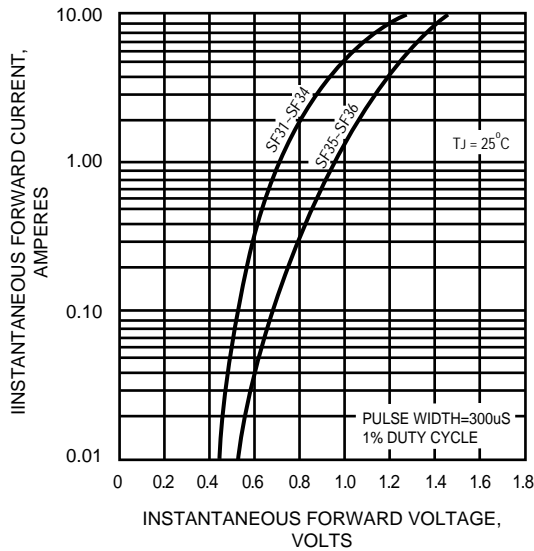


FIG.4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

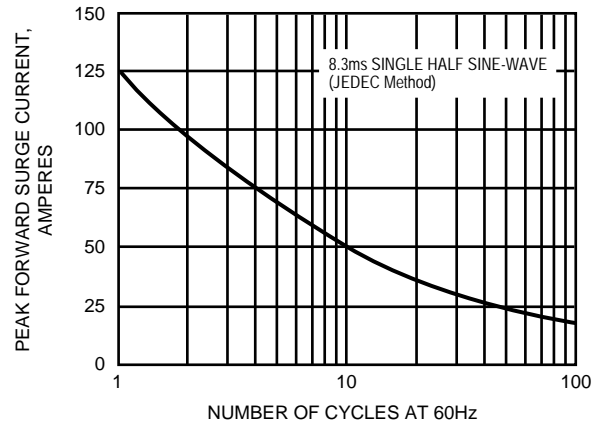


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

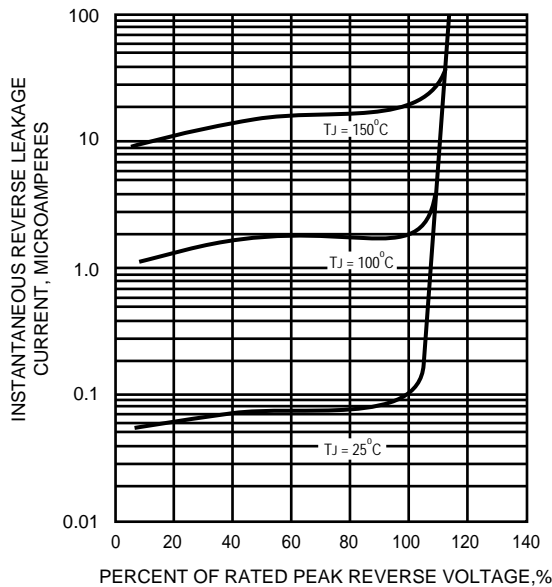


FIG.6 - TYPICAL JUNCTION CAPACITANCE

