

SF31 THRU SF38

SUPER FAST RECOVERY RECTIFIER

VOLTAGE: 50-600V

CURRENT: 3.0A

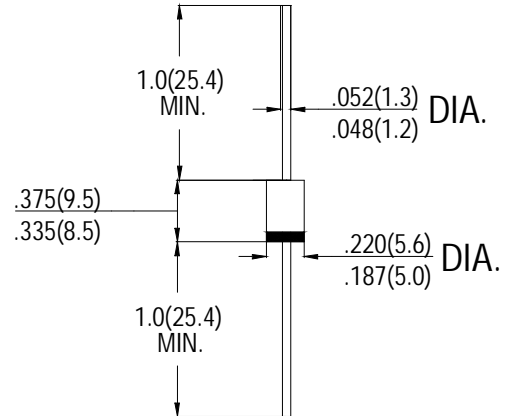
FEATURES

- High reliability
- Low leakage
- Low forward voltage
- High current capability
- Super fast switching speed
- High surge capability
- Good for switching mode circuit

MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:**Color band denotes cathode end
- **Mounting position:** Any
- **Weight:** 1.18 grams

DO-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRONICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOL	SF31	SF32	SF33	SF34	SF35	SF36	SF37	SF38	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward rectified Current at $T_A=55^\circ C$	I_o	3.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	125								A
Maximum Instantaneous forward Voltage at 3.0A DC	V_F	0.95			1.4		1.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ C$	I_R	5.0								μA
Maximum Full Load Reverse Current Full Cycle Average, .375" (9.5mm) lead length		300								
Maximum Reverse Recovery Time (Note 2)	t_{rr}	35								nS
Typical Junction Capacitance (Note 2)	C_J	50				30				pF

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