

SF51 THRU SF56

SUPER FAST RECOVERY RECTIFIER

VOLTAGE: 50-600V

CURRENT: 5.0A

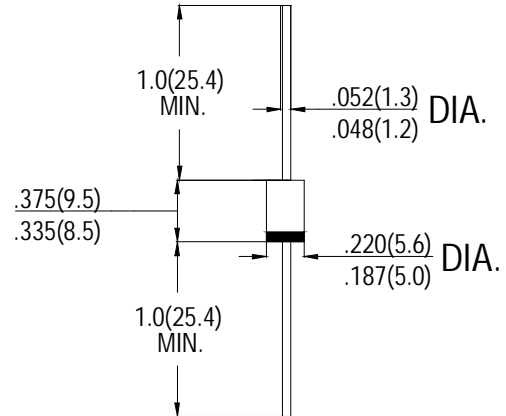
FEATURES

- 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 ELECTRICAL 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	SF51	SF52	SF53	SF54	SF55	SF56	SF57	SF58	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 $T_A=55^\circ\text{C}$	I_o	5.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load	I_{FSM}	150								A
Maximum Instantaneous forward Voltage at 5.0A DC	V_F	0.95			1.4		1.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$	I_R	10.0								μA
Maximum Full Load Reverse Current Full Cycle		100								
Maximum Reverse Recovery	t_{rr}	35								nS
Typical Junction	C_J	120				60				pF

Notes: 1. Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0 volts