



SF31G~SF39G 3.0Amp Super Fast Rectifiers

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Open Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
250°C/10 seconds at terminals

Mechanical Data

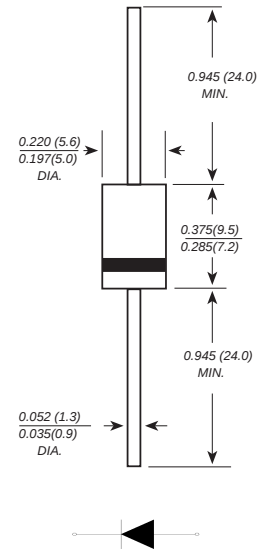
Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0345 ounce, 0.98 grams



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 current derate by 20%.

RATING	SYMBOL	31G	32G	33G	34G	35G	36G	38G	39G	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	600	800	Volts
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	420	560	Volts
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	600	800	Volts
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C	IF(AV)	3.0								Amps.
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	125								Amps.
Maximum Peak Forward Voltage at IF = 3.0 A.	VF	0.95				1.3		1.7		Volts
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	IR	5								µA
	IR(H)	50								µA
Maximum Reverse Recovery Time (Note 1)	Trr	35								ns
Typical Junction Capacitance (Note 2)	CJ	50								pf
Junction Temperature Range	TJ	- 65 to + 150								°C
Storage Temperature Range	TSTG	- 65 to + 150								°C

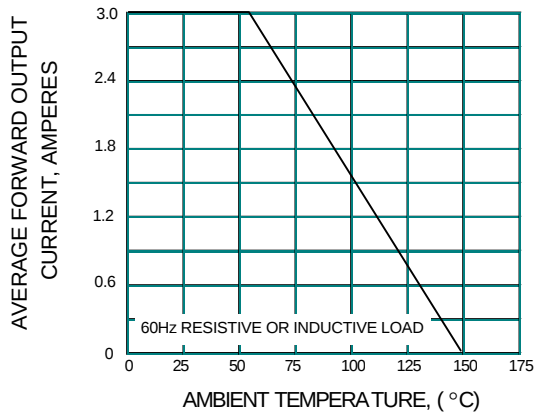
Notes :

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



RATING AND CHARACTERISTIC CURVES

**FIG.1 - DERATING CURVE FOR OUTPUT
RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT**

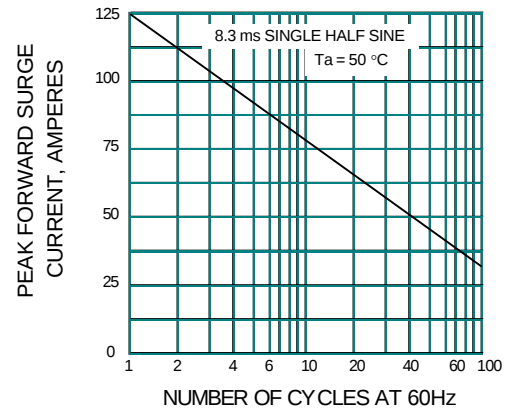


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

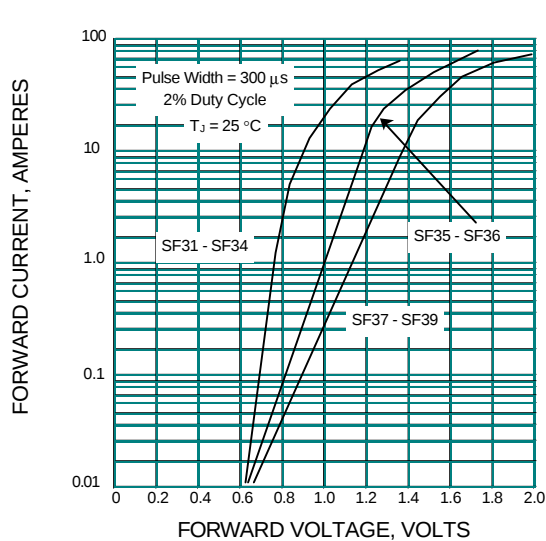


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

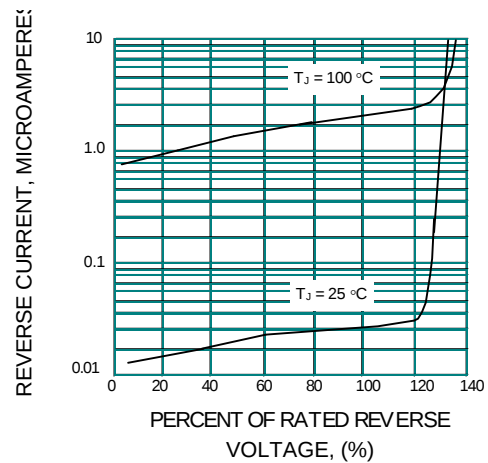
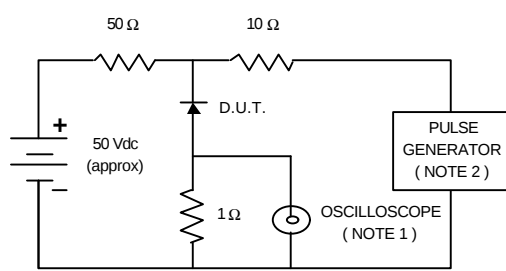


FIG.5 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



- NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

