

# **DISCONTINUED**

# SF11 - SF14

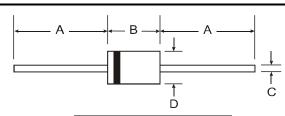
## 1.0A SUPER-FAST RECOVERY RECTIFIER

## **Features**

- Low Leakage
- Low Forward Voltage Drop
- **High Current Capability**
- Super-fast Switching Speed < 35ns
- Plastic Material: UL Flammability Classification Rating 94V-0

## **Mechanical Data**

- Case: Molded Plastic
- Terminals: Plated Axial Leads, Solderable per MIL-STD-202 Method 208
- Polarity: Color Band Denotes Cathode
- Mounting Position: Any
- Weight: 0.3 grams (approximate)



DO-41					
Dim	Min	Max			
Α	25.4	_			
В	4.1	5.2			
С	0.71	0.86			
D	2.0	2.7			
All Dimensions in mm					

# Maximum Ratings and Electrical Characteristics @TA = 25°C unless otherwise specified

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

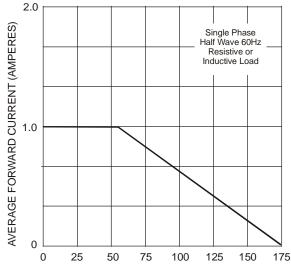
Characteristic	Symbol	SF11	SF12	SF13	SF14	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	V
Maximum Average Forward Rectified Current .375" 9.5mm Lead Length @ T <sub>A</sub> =55°C		1.0				Α
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load		30				Α
Maximum Instantaneous Forward Voltage at 1.0A DC		0.975				V
Maximum DC Reverse Current at Rated DC Blocking Voltage		5.0				μΑ
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>A</sub> = 150°C		50				μА
Maximum Reverse Recovery Time (Note 1)		35				ns
Typical Junction Capacitance (Note 2)		63				pF
Operating and Storage Temperature Range		-65 to + 175				°C

Notes:

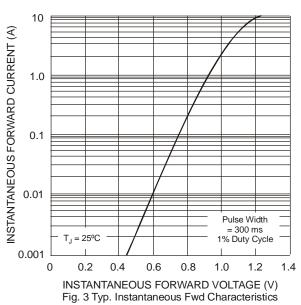
- 1. Reverse Recovery Test Conditions:  $I_F$  =0.5 A,  $I_R$  =1.0 A,  $I_{rr}$ =0.25A
- 2. Measured at 1.0MHz and applied reverse voltage of 4.0V.



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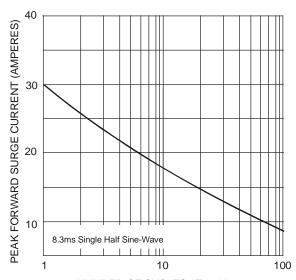


AMBIENT TEMPERATURE (°C)
Fig. 1 Typical Forward Current Derating Curve



70
60
60
40
40
40
00.1
1.0
10
100
1000
REVERSE VOLTAGE (VOLTS)
Fig. 5 Typical Junction Capacitance

INSTANTANEOUS REVERSE CURRENT (m A) T<sub>J</sub> = 150°C 10  $T_{J} = 100^{\circ}C$ 1.0  $T_{J} = 25^{\circ}C$ 0.1 0.01 0 20 40 60 80 100 120 140 PERCENT OF PEAK REVERSE VOLTAGE Fig. 2 Typical Reverse Characteristics



NUMBER OF CYCLES AT 60 Hz Fig. 4 Max Non-Repetitive Peak Fwd Surge Current (A)



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