



Micro Commercial Components  
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# SF11 THRU SF16

## Features

- High reliability
- High current capability
- Low forward voltage drop
- High surge capability

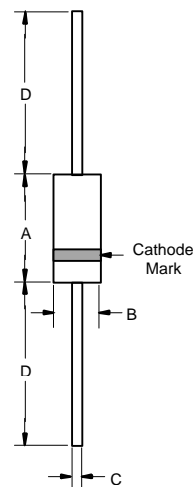
## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- For capacitive load, derate current by 20%

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SF11	50V	35V	50V
SF12	100V	70V	100V
SF13	150V	105V	150V
SF14	200V	140V	200V
SF15	300V	210V	300V
SF16	400V	280V	400V

**1.0 Amp Super Fast  
Rectifier  
50 to 400 Volts**

## DO-41



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_C = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SF11-SF14 SF15-SF16	$V_F$	0.95V 1.3V	$I_{FM} = 1.0A$ ; $T_C = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0uA 100uA	$T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$
Typical Junction Capacitance SF11-SF14 SF15-SF16	$C_J$	50pF 25pF	Measured at 1.0MHz, $V_R=4.0V$
Maximum Reverse Recovery Time	$T_{RR}$	35nS	$I_F=0.5A$ , $I_R=1.0A$ , $I_{RR}=0.25A$

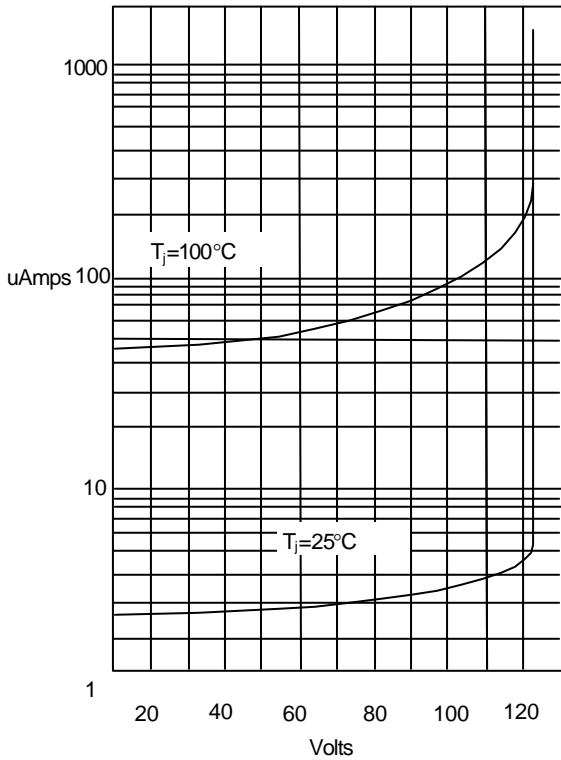
Pulse Test: Pulse width 300 usec, Duty cycle 1%.

## DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

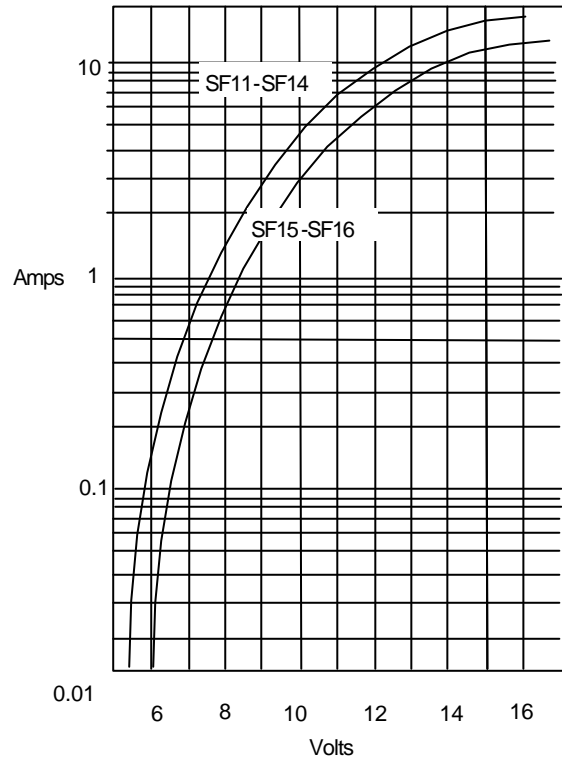
# SF11 thru SF16

Figure 1  
Typical Reverse Characteristics



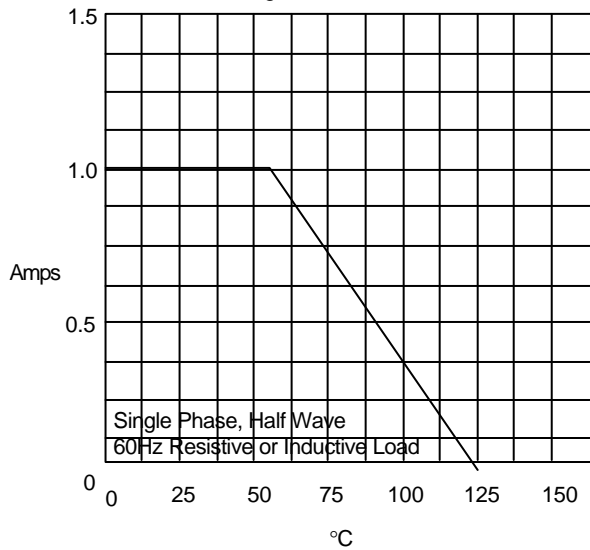
Instantaneous Reverse Current - uAmperes versus Percent of Rated Peak Reverse Voltage - %

Figure 2  
Typical Forward Characteristics



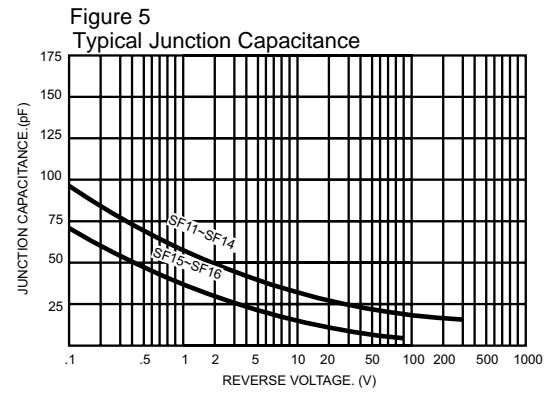
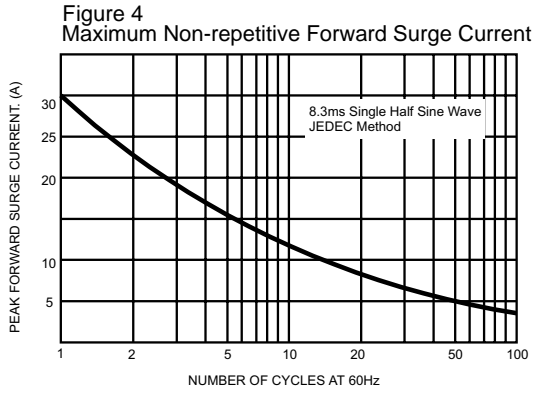
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 3  
Forward Derating Curve

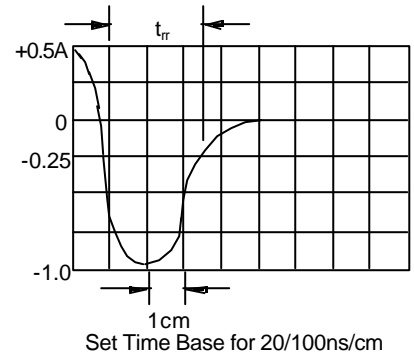
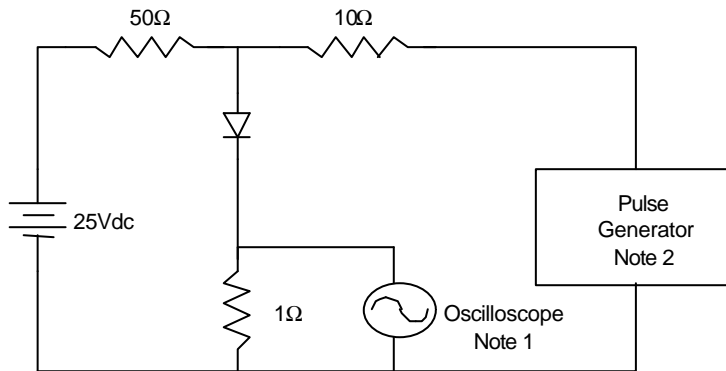


Average Forward Rectified Current Per Leg - Amperes versus Case Temperature - °C

# SF11 thru SF16



**Figure 6**  
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.  
Input impedance = 1 megohm, 22pF
  2. Rise Time = 10ns max.  
Source impedance = 50 ohms
  3. Resistors are non-inductive

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.