

Micro Commercial Components

Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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SF11 Thru SF18

Features

- Fast Switching Speed Marking: Type Number
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
 Epoxy meets UL 94 V-0 flammability rating
 Moisture Sensitivity Level 1

- Halogen free available upon request by adding suffix "-HF"

aximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 50.0°C/W Junction To Ambient

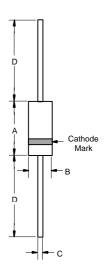
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SF11	50V	35V	50V
SF12	100V	70V	100V
SF13	150V	105V	150V
SF14	200V	140V	200V
SF15	300V	210V	300V
SF16	400V	280V	400V
SF18	600V	420V	600V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I _{F(AV)}	1.0A	T _A = 55°C
Peak Forward Surge Current	I _{FSM}	30.0A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SF11-SF14 SF15-SF16 SF18	V _F	0.95V 1.30V 1.70V	I _{FM} = 1.0A
Maximum DC Reverse Current At Rated DC Blocking Voltage	I _R	5.0uA 100uA	$T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$
Maximum Reverse Recovery Time	T_RR	35.0nS	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A
Typical Junction Capacitance SF11-SF14 SF15-SF18	CJ	40pF 25pF	Measured at 1.0MHz, V _R =4.0V

1.0 Amp Super Fast **Recovery Rectifiers** 50 to 600 Volts

DO-41



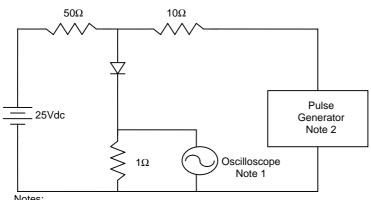
DIMENSIONS						
INCHES		MM				
MIN	MAX	MIN	MAX	NOTE		
.166	.205	4.10	5.20			
.080	.107	2.00	2.70			
.028	.034	.70	.90			
1.000		25.40				
	MIN .166 .080 .028	INCHES MIN MAX .166 .205 .080 .107 .028 .034	INCHES MM MIN MAX MIN 166 .205 4.10 .080 .107 2.00 .028 .034 .70	INCHES MM MAX MIN MAX 166 .205 4.10 5.20 .080 .107 2.00 2.70 .028 .034 .70 .90		

1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.



SF11 thru SF18

Reverse Recovery Time Characteristic And Test Circuit Diagram



+0.5A 0 -0.25 -1.0 1cm Set Time Base for 10ns/cm

Notes:

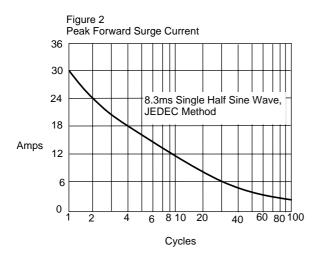
1. Rise Time = 7ns max.

Input impedance = 1 megohm, 22pF

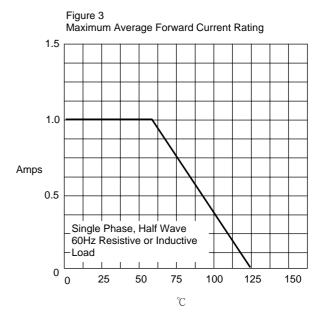
2. Rise Time = 10ns max.

Source impedance = 50 ohms

3. Resistors are non-inductive



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles



Average Forward Rectified Current Per Leg - Amperes versus Ambient Temperature - ℃



SF11 thru SF18

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Figure 4
Typical Junction Characteristics

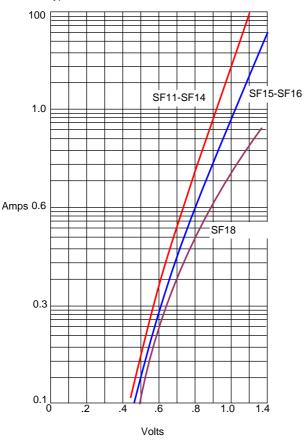
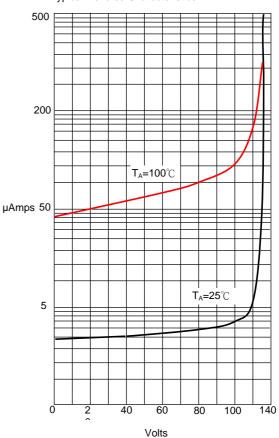


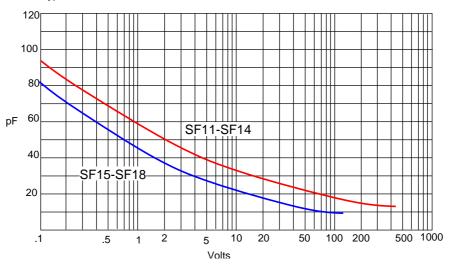
Figure 5
Typical Reverse Characteristics



Instantaneous Forward Current -Amperes *versus* Instantaneous Forward Voltage - Volts

Instantaneous Reverse Leakage Current - MicroAmperes *versus* Percent Of Rated Peak Reverse Voltage - %Volts

Figure 6
Typical Junction Characteristics



Capacitance - pF Reverse Voltage - Volts



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Ordering Information:

Device	Packing	
Part Number-TP	Tape&Reel: 5Kpcs/Reel	
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box	
Part Number-BP	Bulk: 50Kpcs/Carton	

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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