

**Micro Commercial Components** 



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

Phone: (818) 701-4933 Fax: (818) 701-4939

## SFM11PL THRU SFM18PL

## 1 Amp Super Fast Recovery Silicon Rectifier 50 to 600 Volts

### **Features**

- For Surface Mount Applications
- Low Power Loss, High Efficiency
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1)("P"Suffix designates Compliant. See ordering information)
- Welding Iron Temp:350°C for 3s max.
- Storage Condition: Less than 30°C,RH<70%

### **Maximum Ratings**

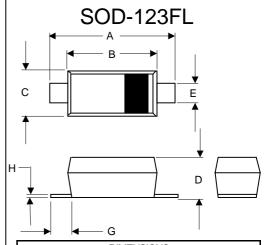
- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Maximum Thermal Resistance; 75°C/W Junction To Ambient.

MCC		Maximum	Maximum	Maximum
Part	Device	Recurrent	RMS	DC
Number	Marking	Peak Reverse	Voltage	Blocking
		Voltage	-	Voltage
SFM11PL	S1	50V	35V	50V
SFM12PL	S2	100V	70V	100V
SFM13PL	S3	150V	105V	150V
SFM14PL	S4	200V	140V	200V
SFM15PL	S5	300V	210V	300V
SFM16PL	S6	400V	280V	400V
SFM17PL	S7	500V	350V	500V
SFM18PL	S8	600V	420V	600V

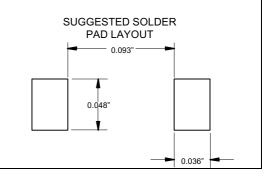
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I <sub>F(AV)</sub>	1.0A	T <sub>a</sub> = 50°C
Peak Forward Surge	I <sub>FSM</sub>	30A	8.3ms, half sine
Current			
Maximum			
Instantaneous			
Forward Voltage			
SFM11PL-14PL	$V_{F}$	.95V	$I_{FM} = 1.0A;$
SFM15PL-16PL		1.25V	T <sub>a</sub> = 25°C
SFM17PL-18PL		1.70V	
Maximum DC			
Reverse Current At	$I_R$	5μΑ	Ta = 25°C
Rated DC Blocking		100μΑ	Ta = 100°C
Voltage			
Maximum Reverse			$I_F$ =0.5A, $I_R$ =1.0A,
Recovery Time	$T_{rr}$	35ns	I <sub>rr</sub> =0.25A
Typical Junction	C. <sub>I</sub>	10pF	Measured at
Capacitance	5	τυρΓ	1.0MHz, V <sub>R</sub> =4.0V

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



DIMENSIONS								
DIM	INCHES		MM		NOTE			
	MIN	MAX	MIN	MAX				
Α	.140	.152	3.55	3.85				
В	.100	.112	2.55	2.85				
С	.055	.071	1.40	1.80				
D	.037	.053	0.95	1.35				
Е	.020	.039	0.50	1.00				
G	.010		0.25					
Н		.008		.20				



### SFM11PL THRU SFM18PL



#### RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD

# FIG.2-TYPICAL FORWARD CURRENT

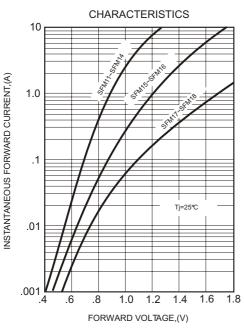
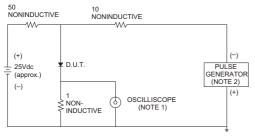
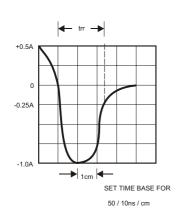


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF

2. Rise Time= 10ns max., Source Impedance= 50 ohms.



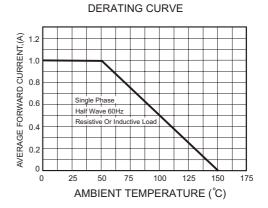


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

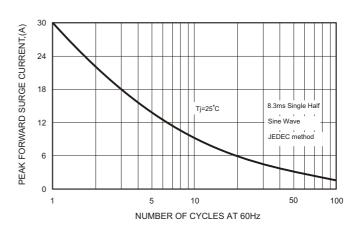
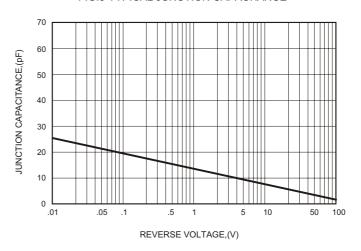


FIG.5-TYPICAL JUNCTION CAPACITANCE





#### **Ordering Information:**

Device	Packing	
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel	

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