

**Micro Commercial Components** 



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## SFM11PL **THRU** SFM18PL

# **Features**

- For Surface Mount Applications
- Low Power Loss, High Efficiency
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Halogen free available upon request by adding suffix "-HF"
- 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.

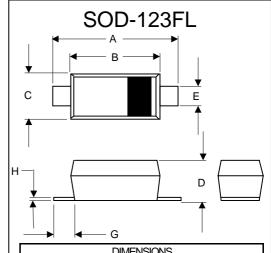
MCC		Maximum	Maximum	Maximum
Part	Device	Recurrent	RMS	DC
Number	Marking	Peak Reverse	Voltage	Blocking
		Voltage	_	Voltage
SFM11PL	S1	50V	35V	50V
SFM12PL	S2	100V	70V	100V
SFM13PL	S3	150V	105V	150V
SFM14PL	S4	200V	140V	200V
SFM15PL	S5	300V	210V	300V
SFM16PL	S6	400V	280V	400V
SFM17PL	S7	500V	350V	500V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

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

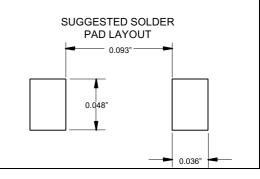
Average Forward	I <sub>F(AV)</sub>	1.0A	T <sub>a</sub> = 50°C
Current			
Peak Forward Surge	$I_{FSM}$	30A	8.3ms, half sine
Current			
Maximum			
Instantaneous			
Forward Voltage			
SFM11PL-14PL	$V_{F}$	.95V	$I_{FM} = 1.0A;$
SFM15PL-16PL		1.25V	T <sub>a</sub> = 25°C
SFM17PL-18PL		1.70V	
Maximum DC			
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	торг	1.0MHz, V <sub>R</sub> =4.0V

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

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



DIIVIENSIONS							
DIM	INCHES		MM		NOTE		
	MIN	MAX	MIN	MAX			
Α	.140	.152	3.55	3.85			
В	.100	.122	2.55	3.10			
С	.055	.075	1.40	1.90			
D	.035	.053	0.90	1.35			
Ε	.020	.041	0.50	1.05			
G	.010		0.25				
Н		.010		.25			



### SFM11PL THRU SFM18PL



### RATING AND CHARACTERISTIC CURVES

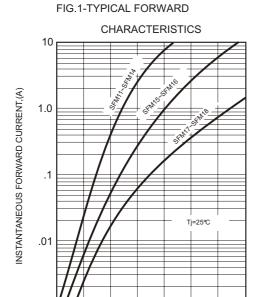


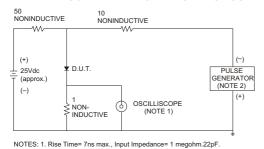
FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

FORWARD VOLTAGE,(V)

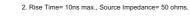
1.0 1.2

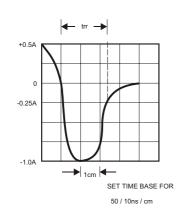
.8

.001

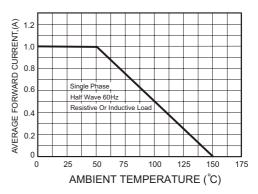


NOTES. 1. Rise Time- 715 max., input impedance- 1 megonin.22

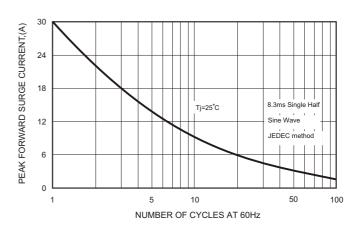




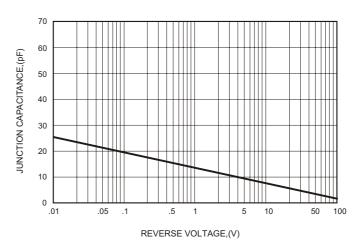
## FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE



## FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



### FIG.5-TYPICAL JUNCTION CAPACITANCE





#### **Micro Commercial Components**

### Ordering Information:

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

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

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D1251S45T JANTX1N3890 SKN20/16 SKN70/16