

M·C·C·

Micro Commercial Components



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Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Low Forward Voltage
- Guard Ring Protection
- High Current Capability
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 35°C/W Junction To Lead
55°C/W Junction To Case
90°C/W Junction To Ambient

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SS12FL	SS12	20V	14V	20V
SS13FL	SS13	30V	21V	30V
SS14FL	SS14	40V	28V	40V
SS15FL	SS15	50V	35V	50V
SS16FL	SS16	60V	42V	60V
SS18FL	SS18	80V	56V	80V
SS110FL	SS110	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_L = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SS12FL~14FL SS15FL~16FL SS18FL~110FL	V_F	.50V .70V .85V	$I_{FM} = 1.0\text{A}$; $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.5mA 20mA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Typical Junction Capacitance SS12FL~16FL SS18FL~110FL	C_J	110pF 30pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

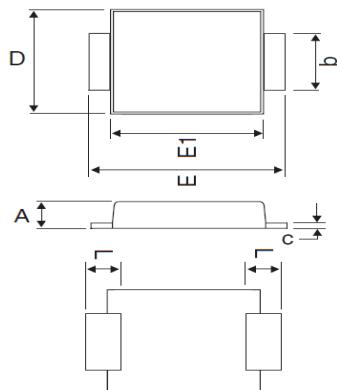
*Pulse test: Pulse width 300 μsec , Duty cycle 2%

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

**SS12FL
THRU
SS110FL**

**1 Amp Schottky
Rectifier
20 to 100 Volts**

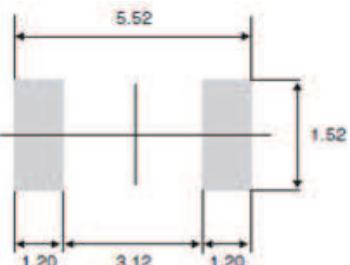
**DO-221AC
(SMA-FL)**



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.035	.043	0.90	1.10	
b	.049	.065	1.25	1.65	
C	.004	.016	0.10	0.40	
D	.089	.116	2.25	2.95	
E	.188	.220	4.80	5.60	
E1	.156	.181	3.95	4.60	
L	.028	.059	0.70	1.50	

SUGGESTED SOLDER PAD LAYOUT

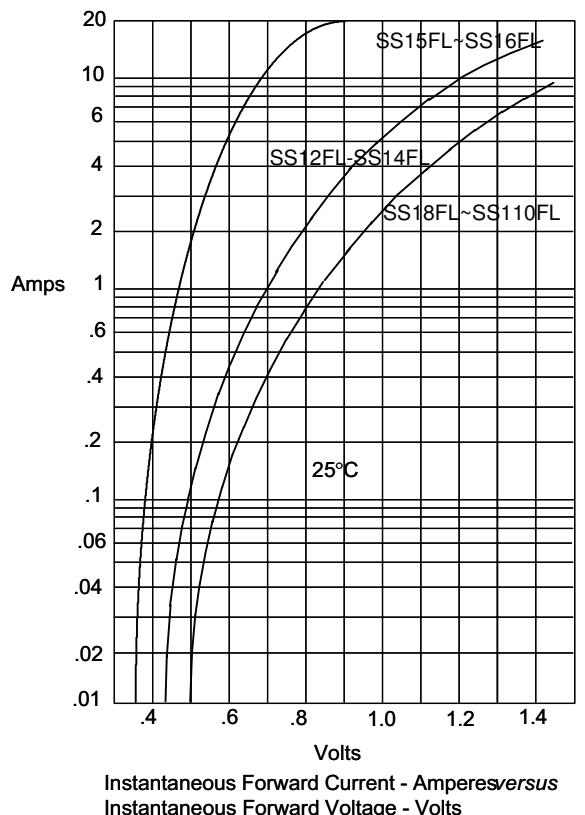
**WWW.MCCSEMI.COM**

SS12FL thru SS110FL

M.C.C.

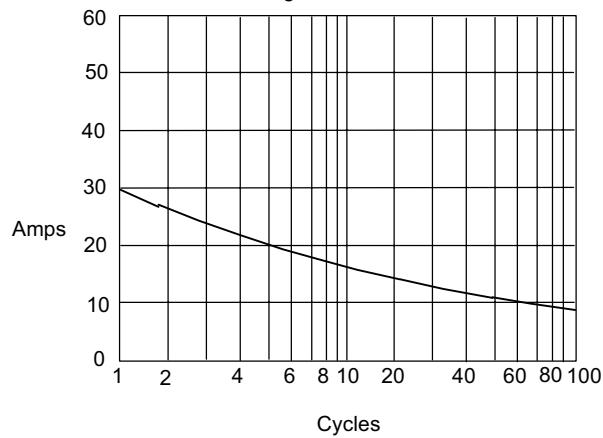
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Figure 1
Typical Forward Characteristics



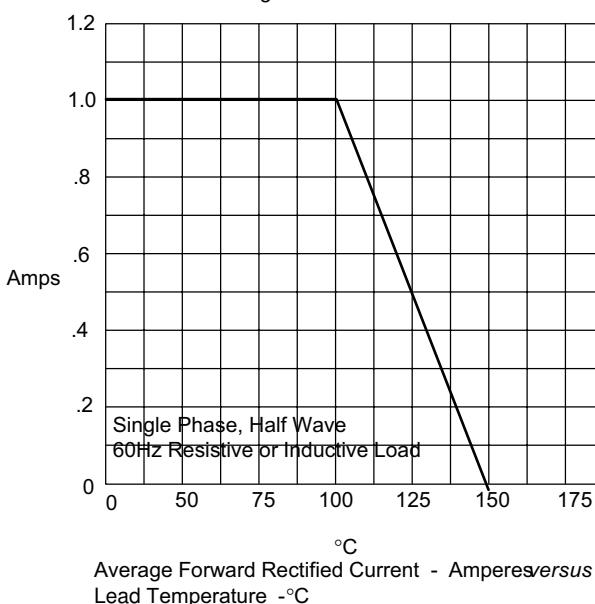
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 3
Peak Forward Surge Current



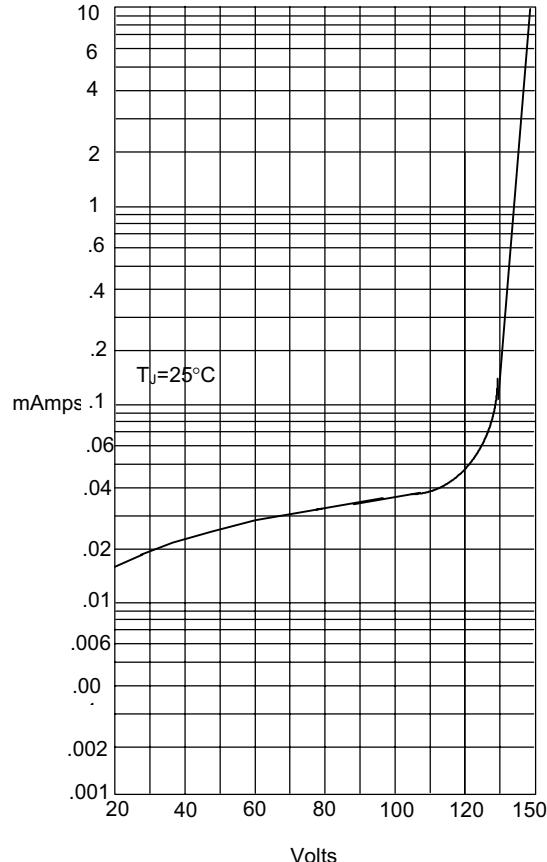
Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Lead Temperature - °C

Figure 4
Typical Reverse Characteristics



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

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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel

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

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