

**SS12
thru
SS100**

Features

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- Reverse Energy Tested
- High Current Capability
- Extremely Low Thermal Resistance

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

Maximum Ratings

- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +150°C
- Maximum Thermal Resistance; 35°C/W Junction To Lead

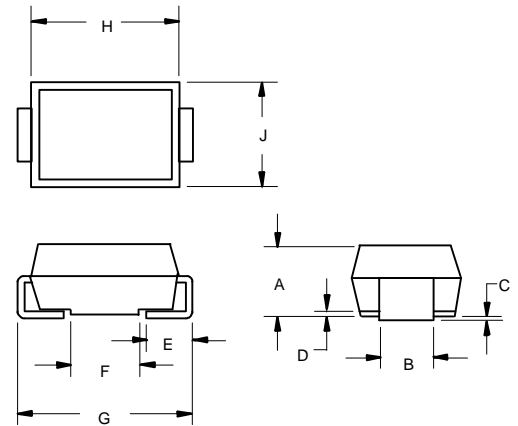
Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SS12	SS12	20V	14V	20V
SS13	SS13	30V	21V	30V
SS14	SS14	40V	28V	40V
SS15	SS15	50V	35V	50V
SS16	SS16	60V	42V	60V
SS18	SS18	80V	56V	80V
SS100	SS100	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_J = 25^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	.55V .70V .85V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	.5mA 20mA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Typical Junction Capacitance	C_J	230pF 50pF	Measured at 1.0MHz, $V_R=4.0V$

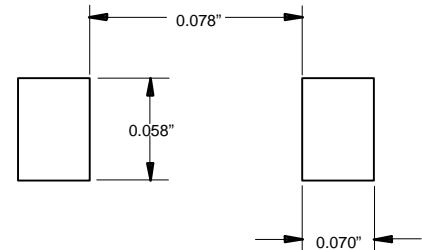
*Pulse test: Pulse width 300 μsec , Duty cycle 2%

**DO-214AC
(SMAJ)**



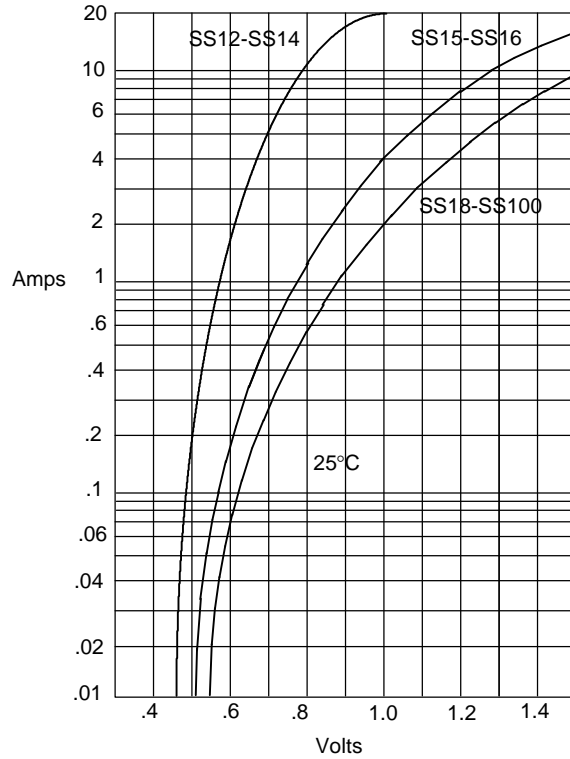
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.078	.090	1.98	2.29	1
B	.052	.058	1.32	1.47	
C	---	.005	---	.127	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
F	.065	.084	1.65	2.13	
G	.194	.208	4.93	5.28	
H	.157	.177	3.99	4.50	
J	.100	.110	2.57	2.79	

**SUGGESTED SOLDER
PAD LAYOUT**



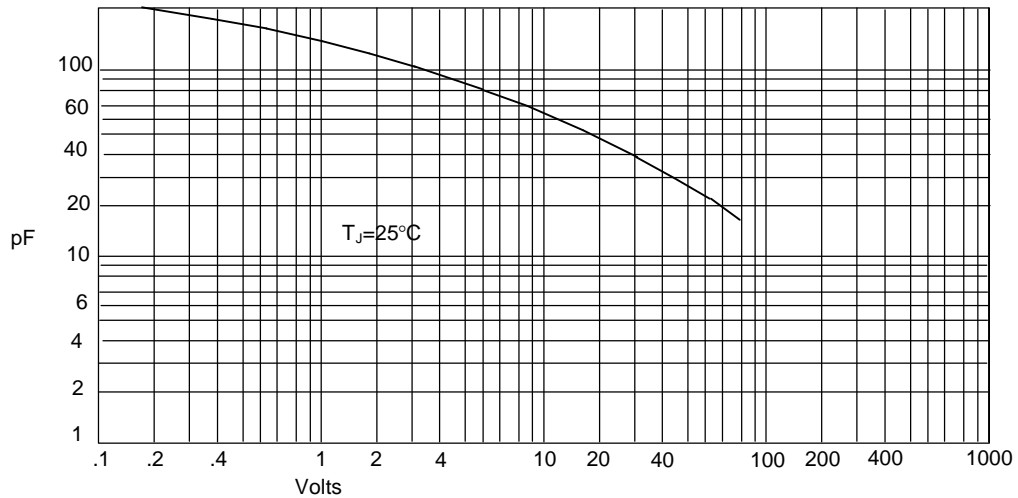
SS12 thru SS100

Figure 1
Typical Forward Characteristics



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

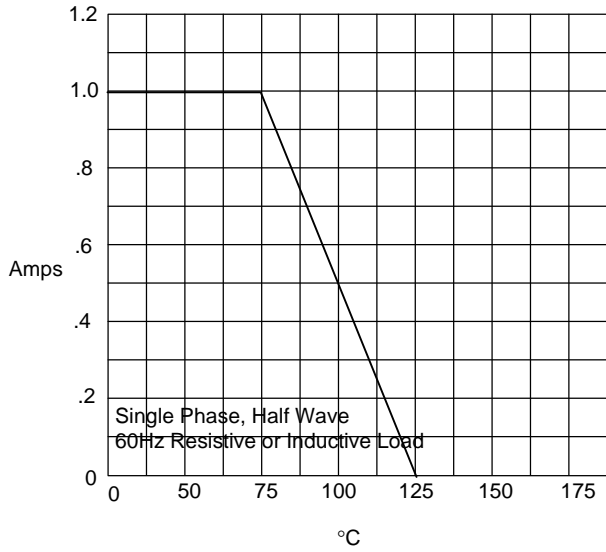
Figure 2
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

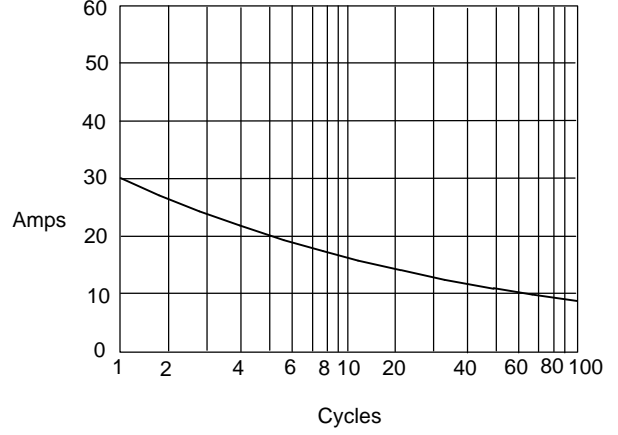
SS12 thru SS100

Figure 3
Forward Derating Curve



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

Figure 4
Peak Forward Surge Current



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