



21201 Itasca St.
Chatsworth, CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

SS12-L thru SS110-L

Features

- Low Profile Package
- Guard Ring Protection
- Low Forward Voltage
- High Current Capability
- Extremely Low Thermal Resistance
- Low Leakage Available With Suffix TS01 (i.e. SS12-LTS01)

Maximum Ratings

- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +150°C
- Maximum Thermal Resistance; 13°C/W Junction To Lead

Microsemi Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SS12-L	SS12	20V	14V	20V
SS13-L	SS13	30V	21V	30V
SS14-L	SS14	40V	28V	40V
SS15-L	SS15	50V	35V	50V
SS16-L	SS16	60V	42V	60V
SS18-L	SS18	80V	56V	80V
SS110-L	SS110	100V	70V	100V

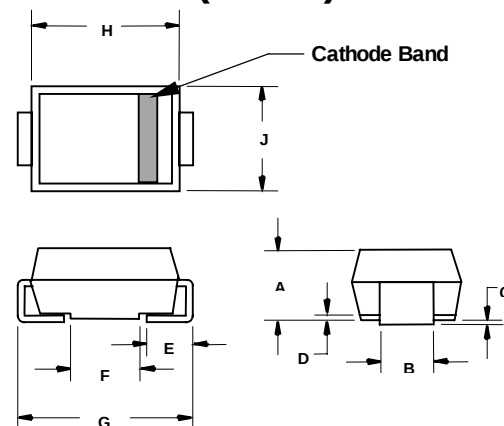
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_J = 75^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SS12-SS14 SS15-SS16 SS18-SS110	V_F	.55V .70V .85V	$I_{FM} = 1.0A$; $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage -LTS01	I_R	0.5mA 20mA 0.3mA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Typical Junction Capacitance SS12 SS13-SS110	C_J	230pF 50pF	Measured at 1.0MHz, $V_R = 4.0V$

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

1 Amp Schottky Rectifier 20 - 100 Volts

DO-214AC (SMAJ)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.078	.095	1.98	2.42	1
B	.081	.087	2.06	2.21	
C	---	.005	---	.127	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
F	.065	.084	1.65	2.13	
G	.205	.228	4.93	5.79	
H	.157	.177	3.99	4.50	
J	.100	.110	2.57	2.79	

SUGGESTED SOLDER PAD LAYOUT

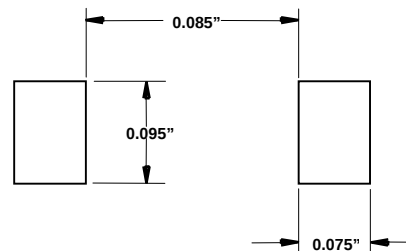
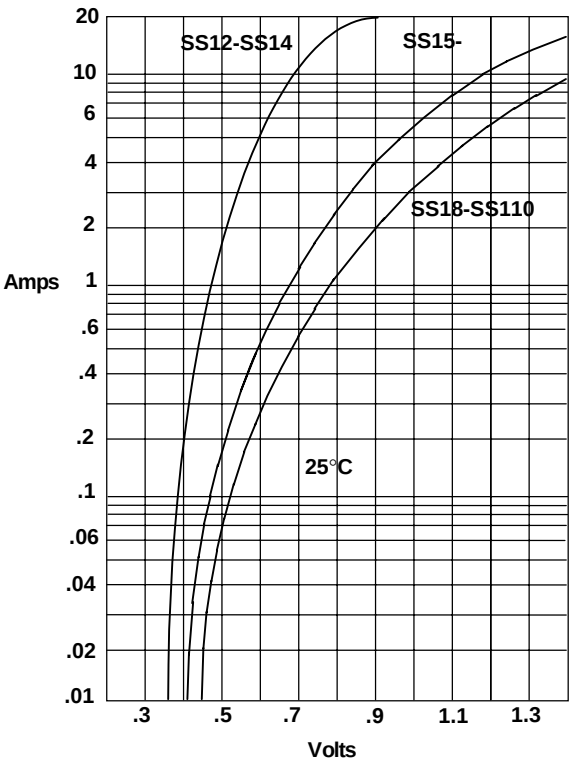
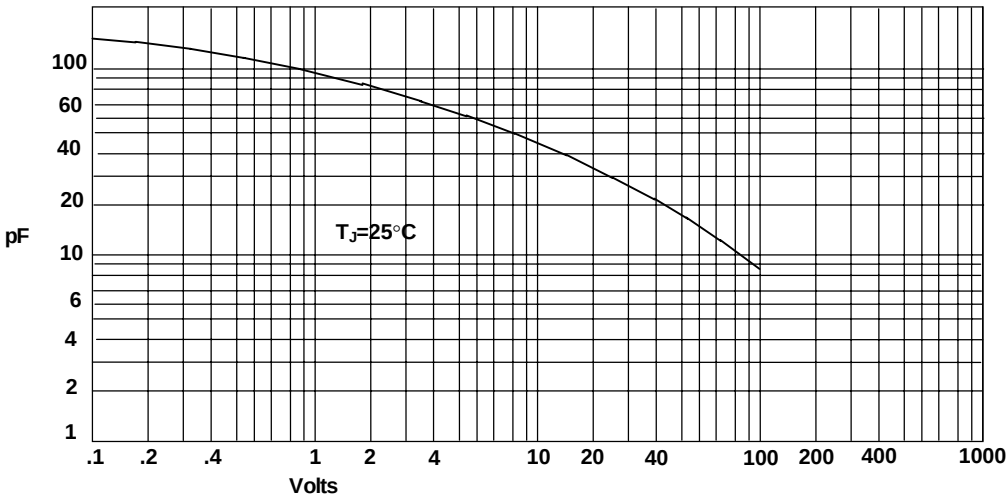


Figure 1
Typical Forward Characteristics



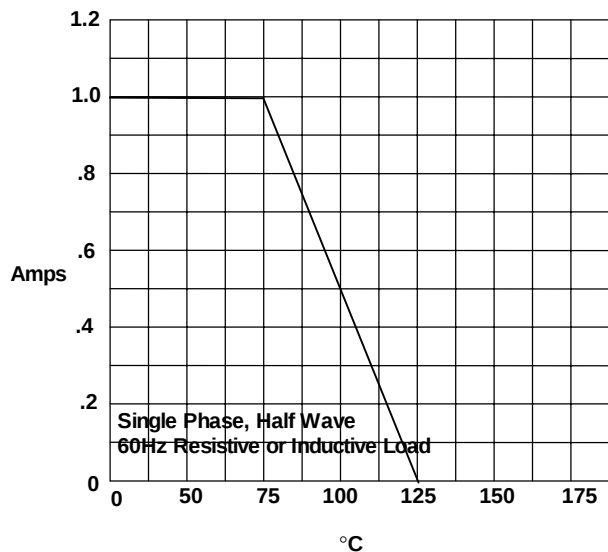
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Junction Capacitance



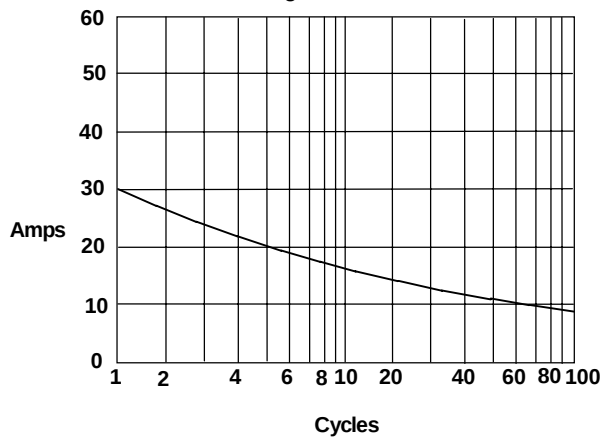
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

Figure 3
Forward Derating Curve



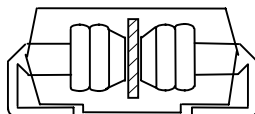
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 4
Peak Forward Surge Current



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

Figure 5
New SMA Assembly



Round Lead