

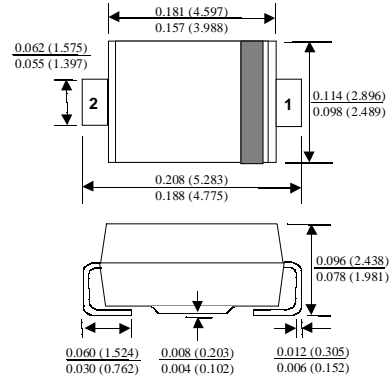
# SS12 - S100

## Features

- Glass passivated junctions.
- High current capability, low  $V_F$ .
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.



**SMA/DO-214AC**  
COLOR BAND DENOTES CATHODE



## 1.0 Ampere Schottky Barrier Rectifiers

### Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$I_O$	Average Rectified Current .375 " lead length @ $T_A = 75^\circ\text{C}$	1.0	A
$i_F(\text{surge})$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	40	A
$P_D$	Total Device Dissipation Derate above $25^\circ\text{C}$	1.1 11	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient **	88	$^\circ\text{C}/\text{W}$
$T_{\text{stg}}$	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-65 to +125	$^\circ\text{C}$

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

\*\* Device mounted on FR-4 PCB 0.013 mm.

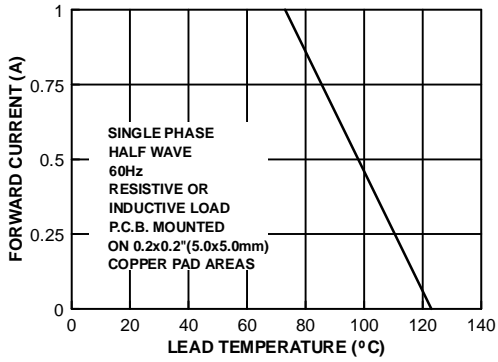
### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Device								Units
	12	13	14	15	16	18	19	100	
Peak Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	14	21	28	35	42	56	64	71	V
DC Reverse Voltage (Rated $V_R$ )	20	30	40	50	60	80	90	100	V
Maximum Reverse Current $T_A = 25^\circ\text{C}$	0.2								mA
(Note 1) @ rated $V_R$ $T_A = 100^\circ\text{C}$	10								mA
Maximum Forward Voltage @ 1.0 A	500		700		850				mV

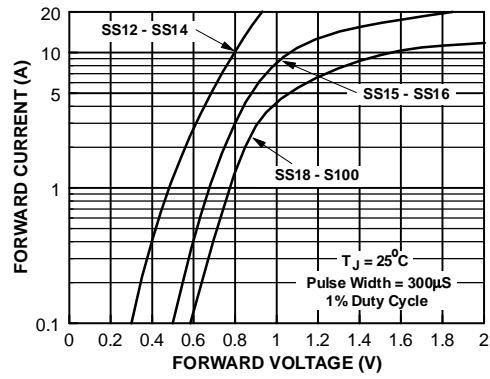
**Note:** Pulse Test: Pulse Width  $\leq 300 \mu\text{s}$ , Duty Cycle  $\leq 2.0\%$

Typical Characteristics

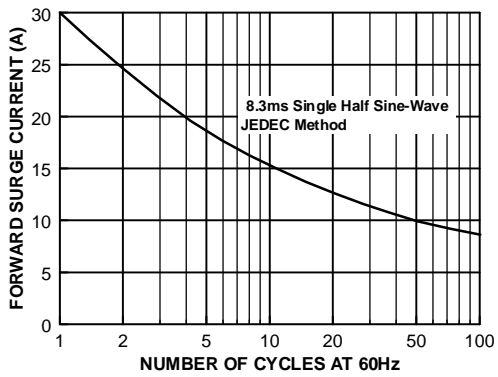
Forward Current Derating Curve



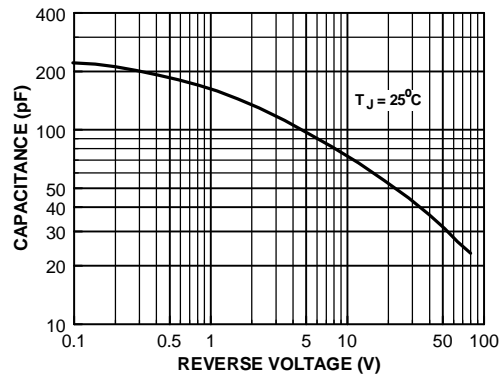
Forward Characteristics



Non-Repetitive Surge Current



Junction Capacitance



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FACT™	QS™
FACT Quiet Series™	Quiet Series™
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FASTr™	SuperSOT™-6
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