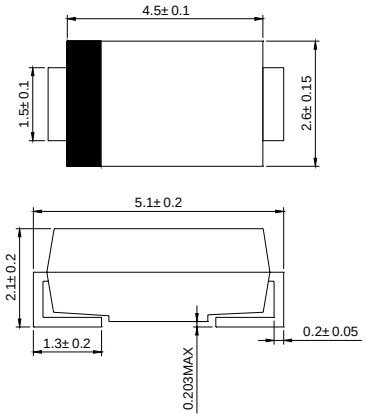
# SS12-SS110

Surface Mount Schottky Barrier Rectifiers

**REVERSE VOLTAGE: 20 - 100 V**
**FORWARD CURRENT: 1.0 A**

**(DO-214AC)SMA**




Dimensions in millimeters

## Features

- ◇ Schottky barrier rectifier
- ◇ Guardring protection
- ◇ Low forward voltage
- ◇ Reverse energy tested
- ◇ High current capability
- ◇ Extremely low thermal resistance

## Mechanical Data

- ◇ Case: SMA molded plastic body
- ◇ Polarity: Color band denotes cathode end
- ◇ Mounting position: ANY
- ◇ Weight: 0.002 ounces, 0.064 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| Device marking code | | SS12 | SS13 | SS14 | SS15 | SS16 | SS18 | SS19 | SS110 | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum RMS voltage | $V_{RWS}$ | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum average forward rectified current at $T_L$=90℃ | $I_{F(AV)}$ | 1.0 | | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave | $I_{FSM}$ | 40 | | | | | | | | A |
| Maximum instantaneous forward voltage at $I_{FM}$=1.0A (NOTE1) | $V_F$ | 0.50 | | | 0.75 | | 0.85 | | | V |
| Maximum DC reverse current $T_J$=25℃ | $I_R$ | 0.2 | | | | | 0.5 | | | m A |
| at rated DC blocking voltage $T_J$=125℃ | | 6.0 | | | | | 5.0 | | | |
| Maximum thermal resistance | $R_{\theta JL}$ | 28 | | | | | | | | °C/W |
| Operating temperature range | $T_J$ | -55 ---- +125 | | | | | | | | °C |
| Storage temperature range | $T_{STG}$ | -55 ---- +150 | | | | | | | | °C |

NOTE: 1.Pulse test: Pulse width 300us,duty cycle 1 %

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## Ratings AND Charactieristic Curves

**FIG.1 -- FORWARD DERATING CURVE**

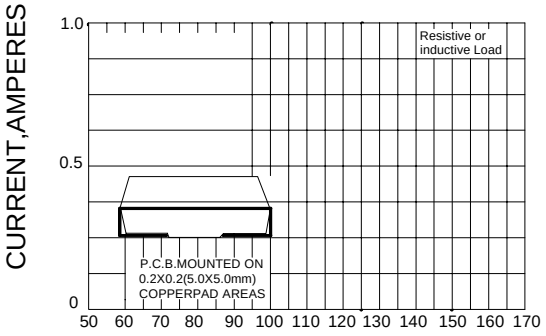


**FIG.2-- PEAK FORWARD SURGE CURRENT**

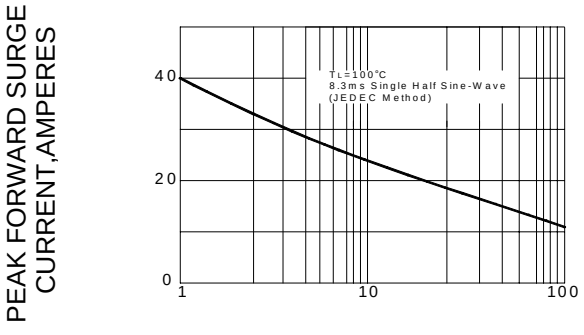


**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**

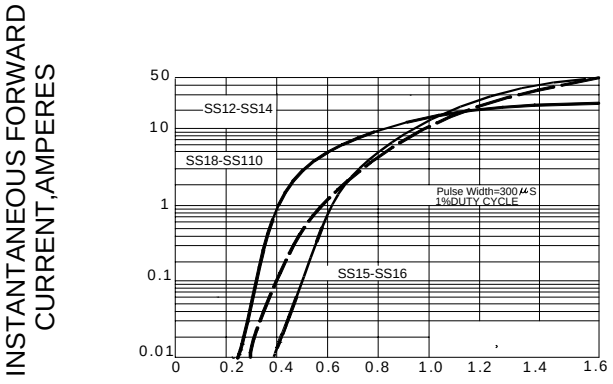


**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**