

# SS12~SS110

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20 to 100 Volt **CURRENT** 1 Ampere

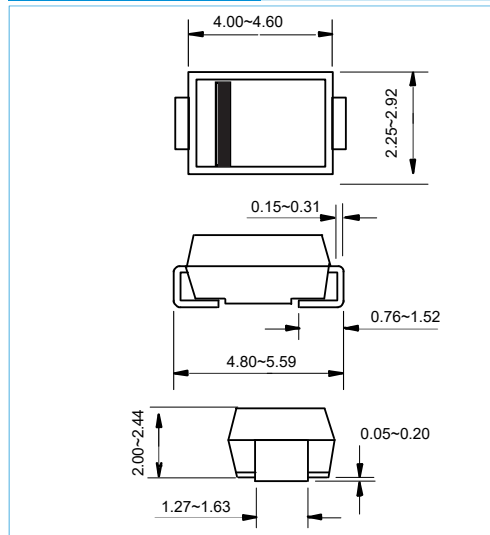
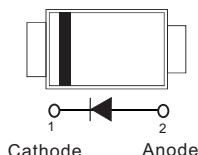
**SMA / DO-214AC** Unit:mm

### FEATURES

- Low power loss, High efficiency
- High surge capacity
- High current capacity, low  $V_F$
- Lead free in compliance with EU RoHS 2.0

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| PARAMETER                                                                                                | SYMBOL                               | SS12        | SS13 | SS14 | SS15 | SS16 | SS18     | SS110 | UNITS  |
|----------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|------|------|------|------|----------|-------|--------|
| Maximum Recurrent Peak Reverse Voltage                                                                   | V <sub>RRM</sub>                     | 20          | 30   | 40   | 50   | 60   | 80       | 100   | V      |
| Maximum RMS Voltage                                                                                      | V <sub>RMS</sub>                     | 14          | 21   | 28   | 35   | 42   | 56       | 70    | V      |
| Maximum DC Blocking Voltage                                                                              | V <sub>DC</sub>                      | 20          | 30   | 40   | 50   | 60   | 80       | 100   | V      |
| Maximum Average Forward Current                                                                          | I <sub>F(AV)</sub>                   | 1           |      |      |      |      |          |       | A      |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load                      | I <sub>FSM</sub>                     | 30          |      |      |      |      |          |       | A      |
| Maximum Forward Voltage at 1 A                                                                           | V <sub>F</sub>                       | 0.50        |      |      | 0.70 |      | 0.85     |       | V      |
| Maximum DC Reverse Current at Rated DC Blocking Voltage<br>T <sub>J</sub> =25°C<br>T <sub>J</sub> =100°C | I <sub>R</sub>                       | 0.5<br>10   |      |      |      |      | 0.1<br>5 |       | mA     |
| Thermal Resistance                                                                                       | R <sub>θJA</sub><br>R <sub>θJL</sub> | 88<br>28    |      |      |      |      |          |       | °C / W |
| Typical Junction Capacitance c <sub>e</sub>                                                              | C <sub>J</sub>                       | 52          |      |      | 45   |      | 35       |       | pF     |
| Operating Junction Temperature Range                                                                     | T <sub>J</sub>                       | -55 to +125 |      |      |      |      |          |       | °C     |
| Storage Temperature Range                                                                                | T <sub>STG</sub>                     | -55 to +150 |      |      |      |      |          |       | °C     |

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## RATING AND CHARACTERISTIC CURVES

FIG.1: FORWARD CURRENT DERATING CURVE

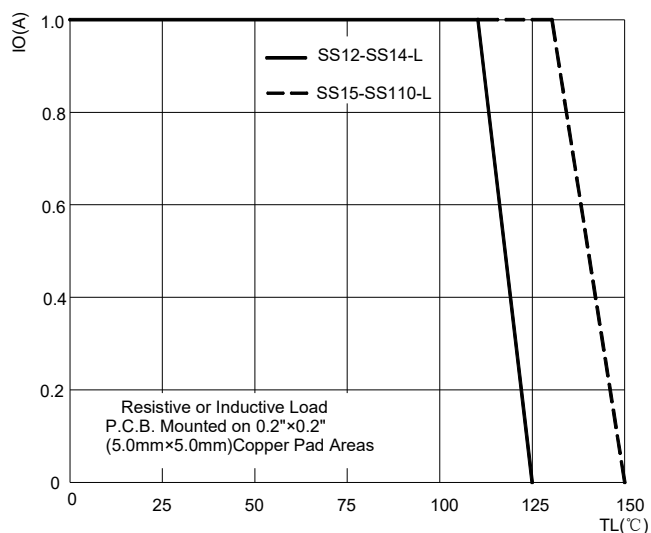


FIG2: Surge Forward Current Capability

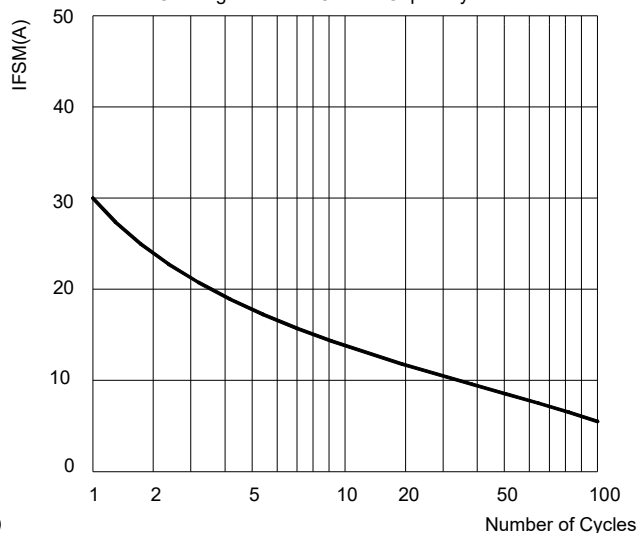


FIG.3: TYPICAL FORWARD CHARACTERISTICS

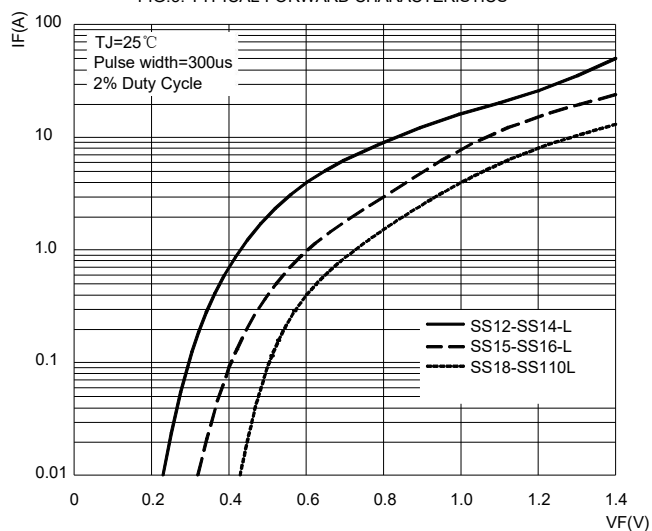
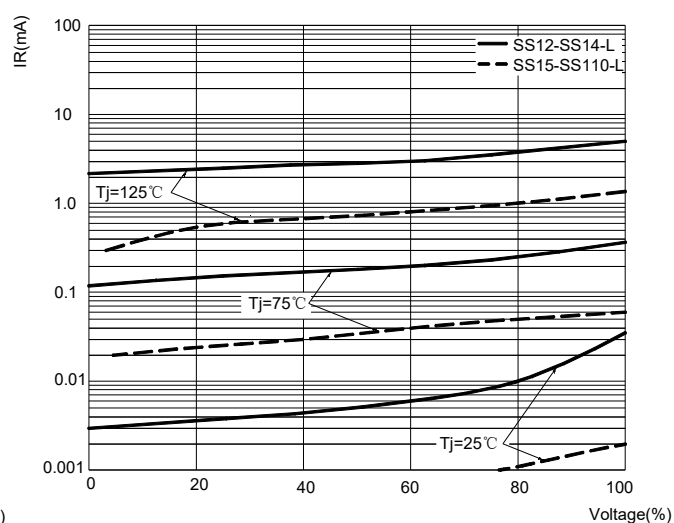


FIG.4: TYPICAL REVERSE CHARACTERISTICS

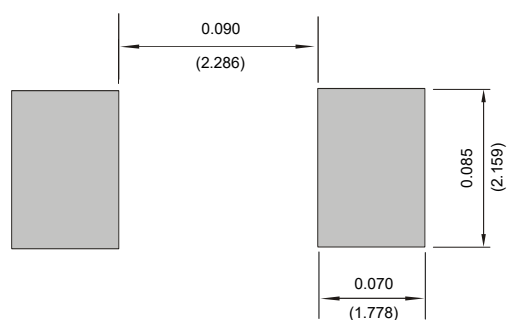


## SS12~SS110

### MOUNTING PAD LAYOUT

#### SMA / DO-214AC

Unit:Inch(mm)



### ORDER INFORMATION

- Packing information

| Part Number | Case | Reel Size | QUANTITY |
|-------------|------|-----------|----------|
| SS12~SS110  | SMA  | 13 Inch   | 5000     |