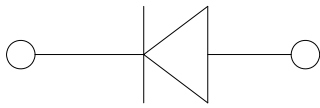
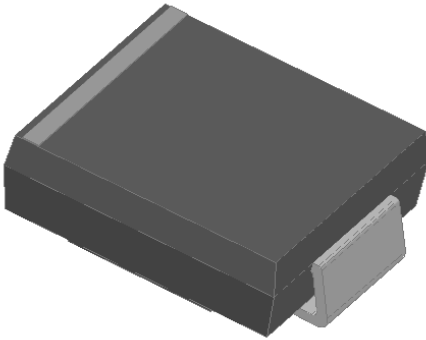


## Surface Mount Schottky Rectifier



### Features

- Guardring for overvoltage protection
- Low power loss
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Solder dip 260 °C max. 10 s, per JESD 22-B106

### Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

### Mechanical Data

- **Package:** DO-214AB (SMC)  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER  | SYMBOL           | UNIT | SS102     | SS103 | SS104 | SS105 | SS106     | SS108 | SS1010 | SS1015 | SS1020 |
|--|------------------|------|-----------|-------|-------|-------|-----------|-------|--------|--------|--------|
| Device marking code  |                  |      | SS102     | SS103 | SS104 | SS105 | SS106     | SS108 | SS1010 | SS1015 | SS1020 |
| Repetitive Peak Reverse Voltage  | V <sub>RRM</sub> | V    | 20        | 30    | 40    | 50    | 60        | 80    | 100    | 150    | 200    |
| Average Rectified Output Current<br>@60Hz sine wave, Resistance load, TL (FIG.1) | I <sub>O</sub>   | A    | 10.0      |       |       |       |           |       |        |        |        |
| Surge(Non-repetitive)Forward Current<br>@60Hz Half-sine wave,1 cycle, Ta=25°C    | I <sub>FSM</sub> | A    | 120       |       |       |       |           |       |        |        |        |
| Storage Temperature  | T <sub>stg</sub> | °C   | -55 ~+150 |       |       |       |           |       |        |        |        |
| Junction Temperature   | T <sub>j</sub>   | °C   | -55~+125  |       |       |       | -55 ~+150 |       |        |        |        |

### ■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL         | UNIT | TEST CONDITIONS       | SS102 | SS103 | SS104 | SS105 | SS106 | SS108 | SS1010 | SS1015 | SS1020 |
|---|----------------|------|-----------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub> | V    | I <sub>FM</sub> =8.0A | 0.6   |       |       | 0.7   | 0.85  |       | 0.95   |        |        |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>R</sub> | mA   | Ta=25°C               | 0.2   |       |       |       | 0.1   |       |        |        |        |
|   |                |      | Ta=100°C              | 20    |       |       |       | 5.0   |       |        |        |        |

### ■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER          | SYMBOL                       | UNIT              | SS102             | SS103 | SS104 | SS105 | SS106 | SS108 | SS1010 | SS1015 | SS1020 |
|--------------------|------------------------------|-------------------|-------------------|-------|-------|-------|-------|-------|--------|--------|--------|
| Thermal Resistance | Between junction and ambient | R <sub>BJ-A</sub> | 65 <sup>(1)</sup> |       |       |       |       |       |        |        |        |
|                    | Between junction and lead    | R <sub>BJ-L</sub> | 8 <sup>(1)</sup>  |       |       |       |       |       |        |        |        |

Note (1)

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas



# SS102 THRU SS1020

## Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| SS102~SS1020  | F1           | Approximate 0.254 | 3000                 | 6000                    | 42000                      | 13" reel      |

## Characteristics (Typical)

FIG.1: Io-TL Curve

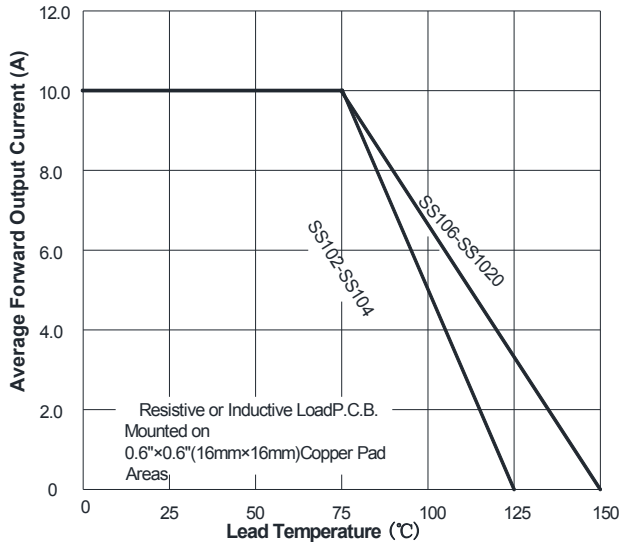


FIG.2: Forward Surge Current Capability

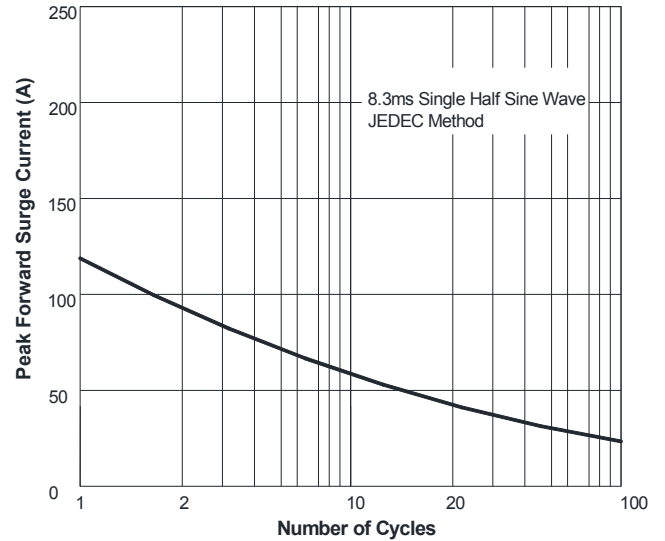


FIG.3: Forward Voltage

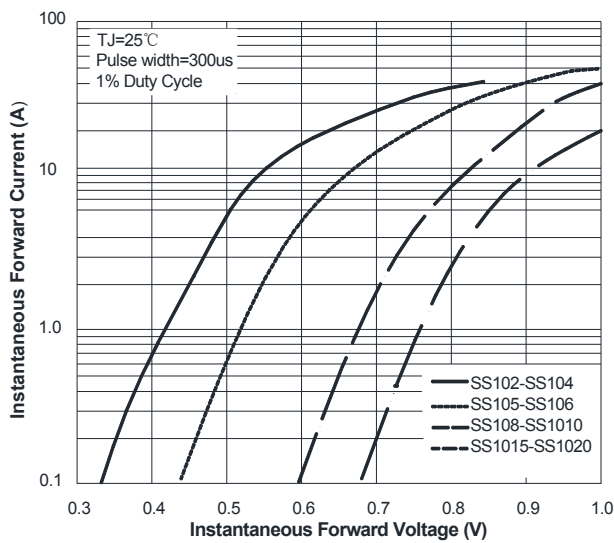
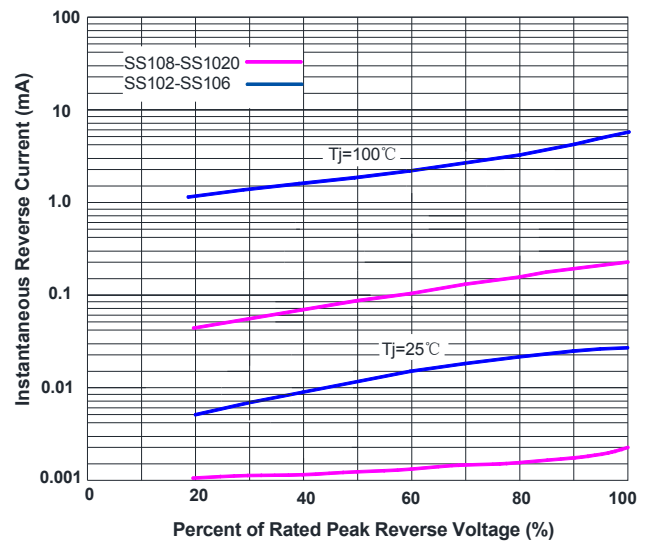
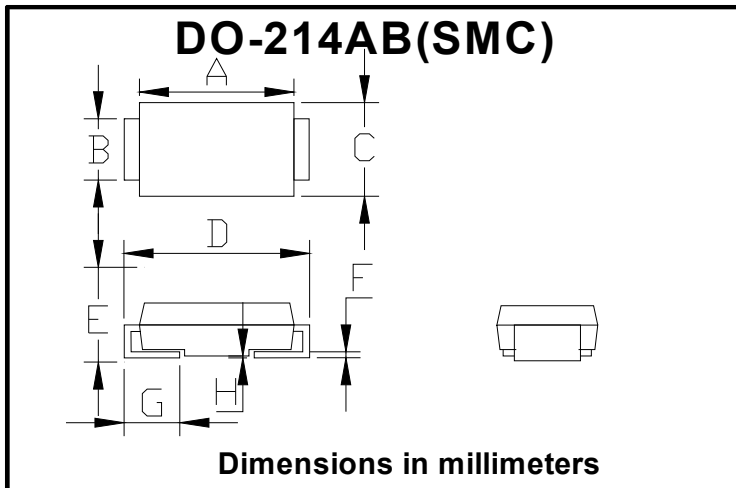


FIG.4: Typical Reverse Characteristics



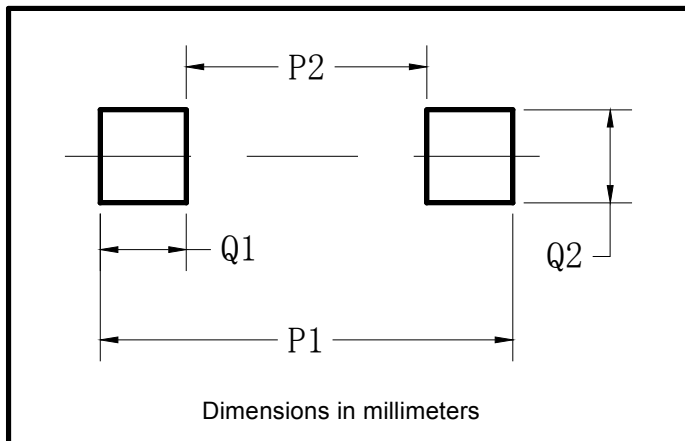


## ■ Outline Dimensions



| DO-214AB (SMC) |      |      |
|----------------|------|------|
| Dim            | Min  | Max  |
| A              | 6.60 | 7.11 |
| B              | 2.85 | 3.27 |
| C              | 5.59 | 6.22 |
| D              | 7.75 | 8.13 |
| E              | 1.99 | 2.61 |
| F              | 0.15 | 0.31 |
| G              | 0.76 | 1.52 |
| H              | 0.10 | 0.20 |

## ■ Suggested pad layout



| DO-214AB (SMC) |      |
|----------------|------|
| Dim            | Min  |
| P1             | 9.9  |
| P2             | 3.84 |
| Q1             | 3.03 |
| Q2             | 3.82 |



## SS102 THRU SS1020

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