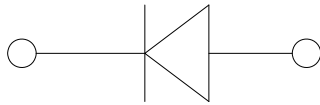
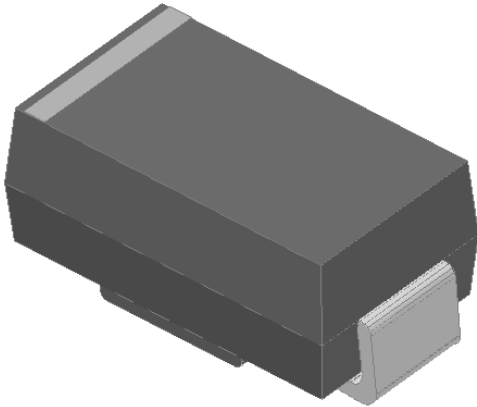


## Surface Mount Schottky Rectifier



### Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

### Typical Applications

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

### Mechanical Data

- **Package:** DO-214AC (SMA)  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

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

| PARAMETER   | SYMBOL           | UNIT | SS        |     |     |     |           |     |      |      |      |
|---|------------------|------|-----------|-----|-----|-----|-----------|-----|------|------|------|
|   |                  |      | 22A       | 23A | 24A | 25A | 26A       | 28A | 210A | 215A | 220A |
| Device marking code   |                  |      | SS        |     |     |     |           |     |      |      |      |
|   |                  |      | 22A       | 23A | 24A | 25A | 26A       | 28A | 210A | 215A | 220A |
| Repetitive Peak Reverse Voltage   | V <sub>RRM</sub> | V    | 20        | 30  | 40  | 50  | 60        | 80  | 100  | 150  | 200  |
| Average Rectified Output Current<br>@60Hz Half-sine wave, Resistance load, TL (FIG.1) | I <sub>O</sub>   | A    | 2.0       |     |     |     |           |     |      |      |      |
| Surge(Non-repetitive)Forward Current<br>@60Hz Half-sine wave, 1 cycle, Ta=25°C        | I <sub>FSM</sub> | A    | 50        |     |     |     |           |     |      |      |      |
| Junction Temperature  | T <sub>j</sub>   | °C   | -55~+125  |     |     |     | -55 ~+150 |     |      |      |      |
| Storage Temperature   | T <sub>stg</sub> | °C   | -55 ~+150 |     |     |     |           |     |      |      |      |

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

| PARAMETER  | SYMBOL           | UNIT | TEST CONDITIONS       | SS   |     |      |     |      |     |      |      |
|--|------------------|------|-----------------------|------|-----|------|-----|------|-----|------|------|
|  |                  |      |                       | 22A  | 23A | 24A  | 25A | 26A  | 28A | 210A | 215A |
| Maximum instantaneous forward voltage drop per diode   | V <sub>F</sub>   | V    | I <sub>FM</sub> =2.0A | 0.50 |     | 0.70 |     | 0.85 |     | 0.90 |      |
| Maximum DC reverse current at rated DC blocking voltage per diode@ V <sub>RM</sub> =V <sub>RRM</sub> | I <sub>RRM</sub> | mA   | Ta=25°C               | 0.50 |     |      |     | 0.10 |     |      |      |
|  |                  |      | Ta=100°C              | 10   |     |      |     | 5    |     |      |      |



# SS22A THRU SS220A

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER          | SYMBOL                           | UNIT | SS  |     |     |     |     |     |      |      |
|--------------------|----------------------------------|------|-----|-----|-----|-----|-----|-----|------|------|
|                    |                                  |      | 22A | 23A | 24A | 25A | 26A | 28A | 210A | 215A |
| Thermal Resistance | R <sub>θJ-A</sub> <sup>(1)</sup> | °C/W | 75  |     |     |     |     |     |      |      |
|                    | R <sub>θJ-L</sub> <sup>(1)</sup> |      | 17  |     |     |     |     |     |      |      |

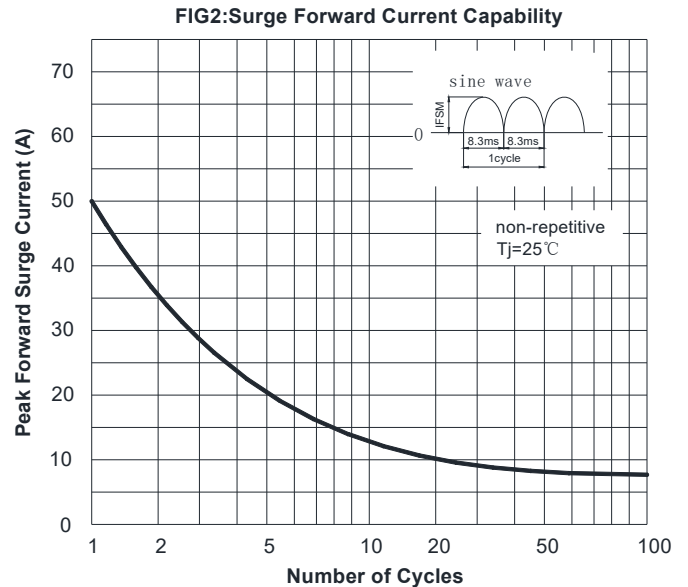
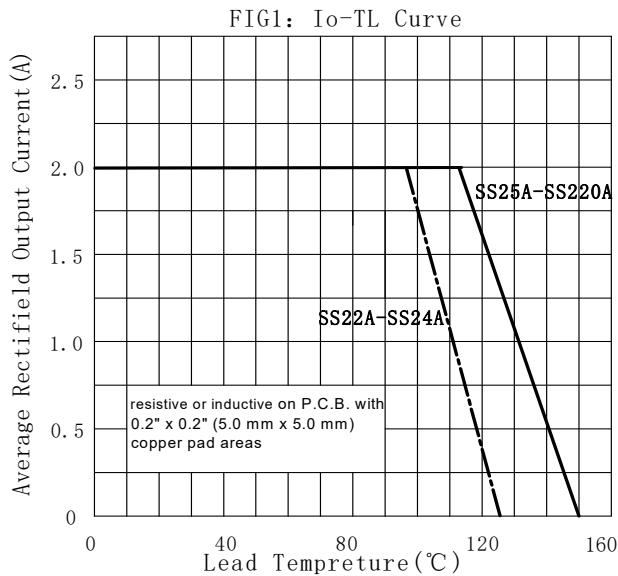
Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

## ■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| SS22A- SS220A | F1           | Approximate 0.059 | 5000                 | /                       | 80000                      | 13" reel      |
| SS22A- SS220A | F2           | Approximate 0.059 | 7500                 | /                       | 120000                     | 13" reel      |
| SS22A- SS220A | F3           | Approximate 0.059 | 7500                 | /                       | 60000                      | 13" reel      |
| SS22A- SS220A | F4           | Approximate 0.059 | 1800                 | 7200                    | 57600                      | 7" reel       |
| SS22A- SS220A | F5           | Approximate 0.059 | 2000                 | 8000                    | 64000                      | 7" reel       |
| SS22A- SS220A | F6           | Approximate 0.059 | 5000                 | /                       | 100000                     | 13" reel      |

## ■ Characteristics (Typical)





# SS22A THRU SS220A

FIG3: Forward Voltage

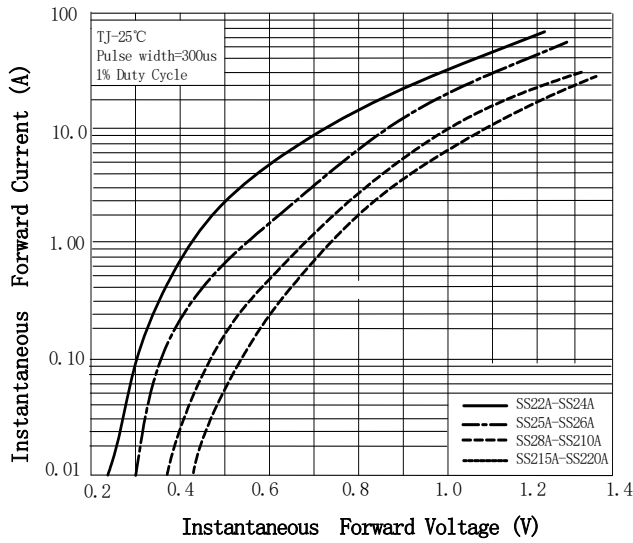
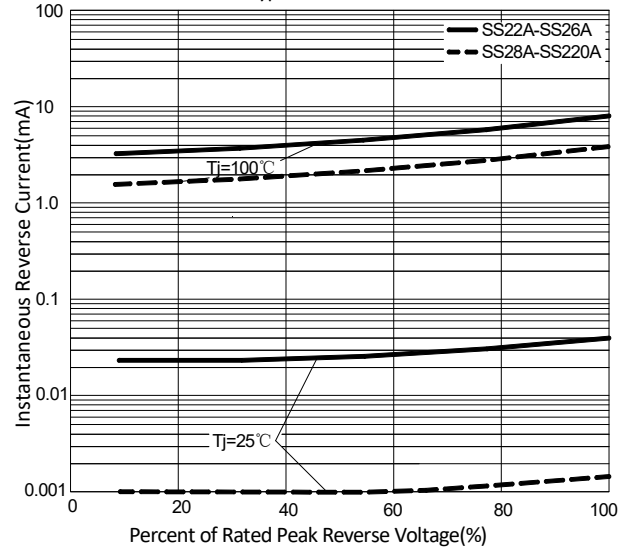
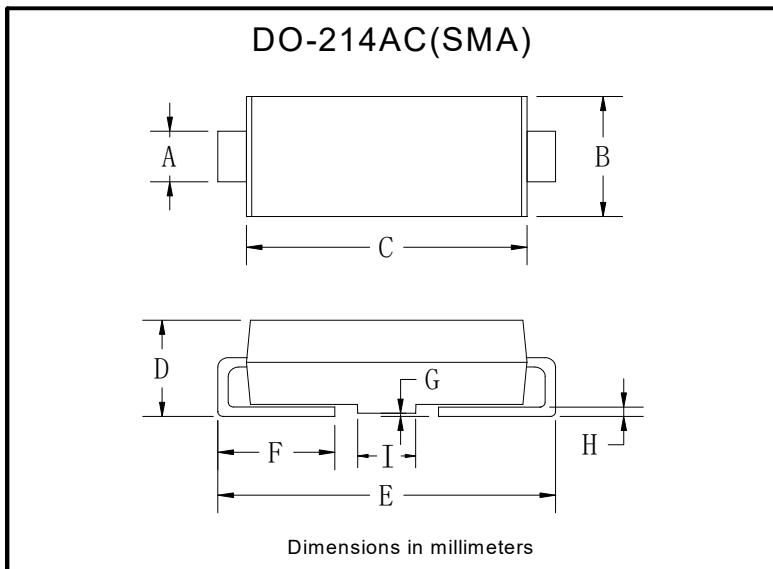


FIG4: Typical Reverse Characteristics

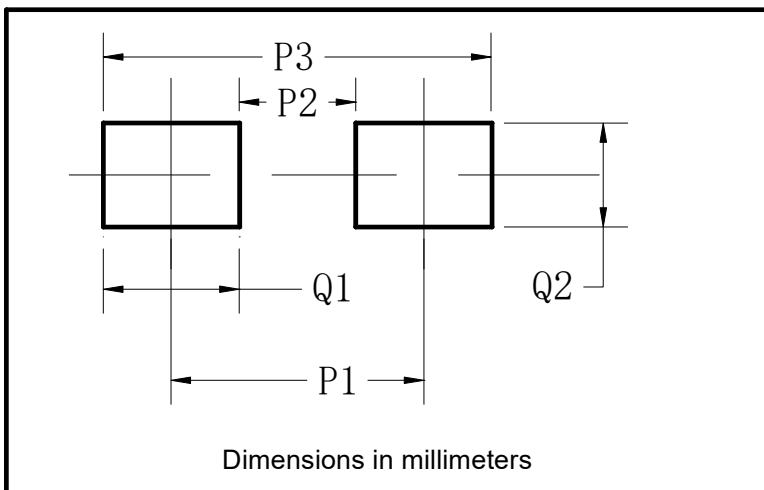


## ■ Outline Dimensions



| DO-214AC(SMA) |      |      |
|---------------|------|------|
| Dim           | Min  | Max  |
| A             | 1.25 | 1.58 |
| B             | 2.40 | 2.83 |
| C             | 4.00 | 4.75 |
| D             | 1.90 | 2.30 |
| E             | 4.93 | 5.28 |
| F             | 0.76 | 1.41 |
| G             | 0.05 | 0.20 |
| H             | 0.15 | 0.31 |
| I             | 1.70 | 2.10 |

## ■ Suggested Pad Layout



| DO-214AC(SMA) |             |
|---------------|-------------|
| Dim           | Millimeters |
| P1            | 4.00        |
| P2            | 1.50        |
| P3            | 6.50        |
| Q1            | 2.50        |
| Q2            | 1.70        |



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