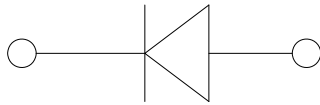
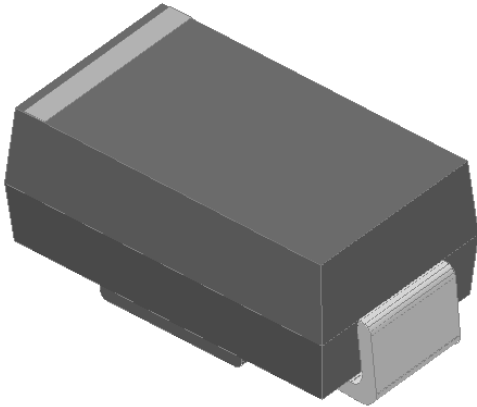


## Surface Mount Schottky Rectifier



### 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 (T<sub>j</sub>=25°C Unless otherwise specified)

| PARAMETER                                                                                   | SYMBOL           | UNIT | SS24AT    |
|---------------------------------------------------------------------------------------------|------------------|------|-----------|
| Device marking code                                                                         |                  |      | SS24AT    |
| Repetitive Peak Reverse Voltage                                                             | V <sub>RRM</sub> | V    | 40        |
| Maximum RMS Voltage                                                                         | V <sub>RMS</sub> | V    | 28        |
| Maximum DC Blocking Voltage                                                                 | V <sub>DC</sub>  | V    | 40        |
| 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, T <sub>j</sub> =25°C | I <sub>FSM</sub> | A    | 50        |
| Junction Temperature                                                                        | T <sub>j</sub>   | °C   | -55~+150  |
| Storage Temperature                                                                         | T <sub>stg</sub> | °C   | -55 ~+150 |
| Typical Junction capacitance @4V, 1MHz                                                      | C <sub>j</sub>   | pF   | 106       |

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

| PARAMETER                                                                                            | SYMBOL           | UNIT | TEST CONDITIONS       | SS24AT |
|------------------------------------------------------------------------------------------------------|------------------|------|-----------------------|--------|
| Maximum instantaneous forward voltage drop per diode                                                 | V <sub>F</sub>   | V    | I <sub>FM</sub> =2.0A | 0.55   |
| Maximum DC reverse current at rated DC blocking voltage per diode@ V <sub>RM</sub> =V <sub>RRM</sub> | I <sub>RRM</sub> | mA   | T <sub>j</sub> =25°C  | 0.50   |
|                                                                                                      |                  |      | T <sub>j</sub> =125°C | 10     |

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS



## SS24AT

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

| PARAMETER          | SYMBOL           | UNIT | SS24AT |
|--------------------|------------------|------|--------|
| Thermal Resistance | R <sub>θJA</sub> | ℃/W  | 75     |
|                    | R <sub>θJL</sub> |      | 23     |

### ■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| SS24AT        | F1           | Approximate 0.059 | 5000                 | /                       | 80000                      | 13" reel      |
| SS24AT        | F2           | Approximate 0.059 | 7500                 | /                       | 120000                     | 13" reel      |
| SS24AT        | F3           | Approximate 0.059 | 7500                 | /                       | 60000                      | 13" reel      |
| SS24AT        | F4           | Approximate 0.059 | 1800                 | 7200                    | 57600                      | 7" reel       |
| SS24AT        | F5           | Approximate 0.059 | 2000                 | 8000                    | 64000                      | 7" reel       |
| SS24AT        | F6           | Approximate 0.059 | 5000                 | /                       | 100000                     | 13" reel      |

### ■ Characteristics (Typical)

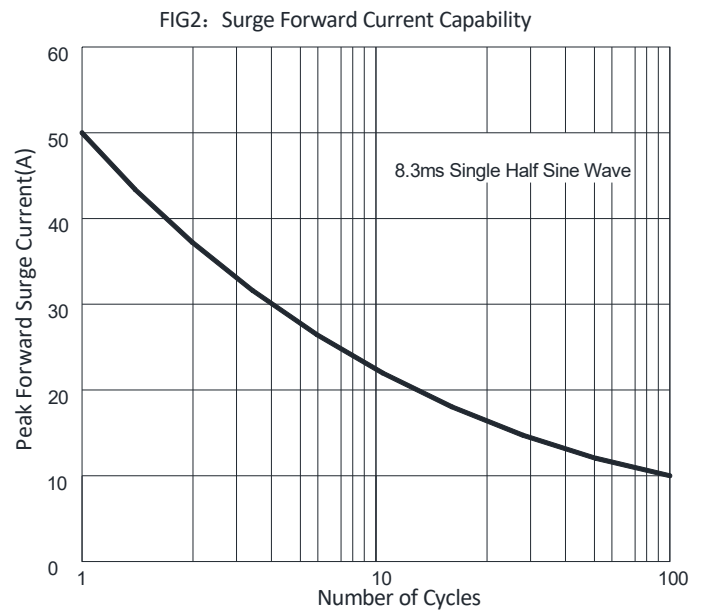
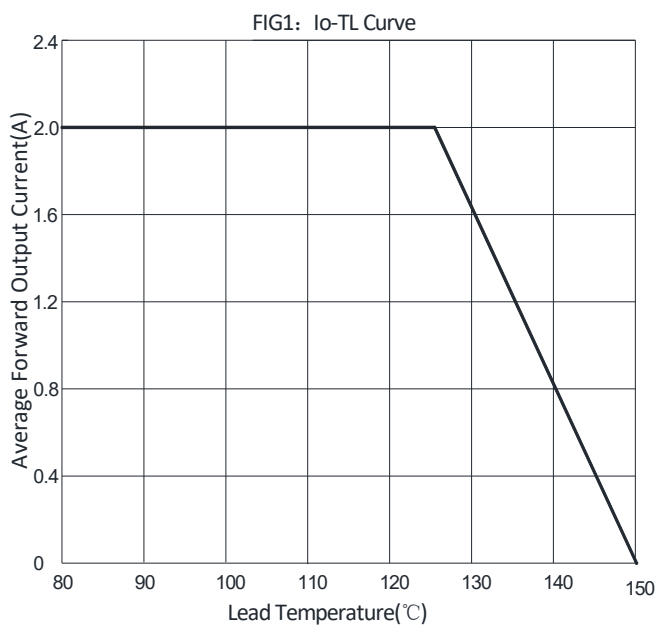


FIG3: Forward Voltage

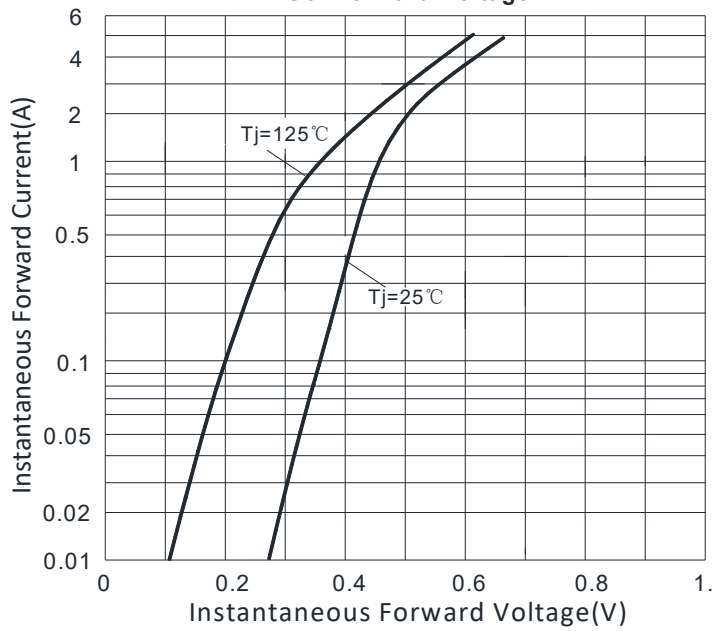
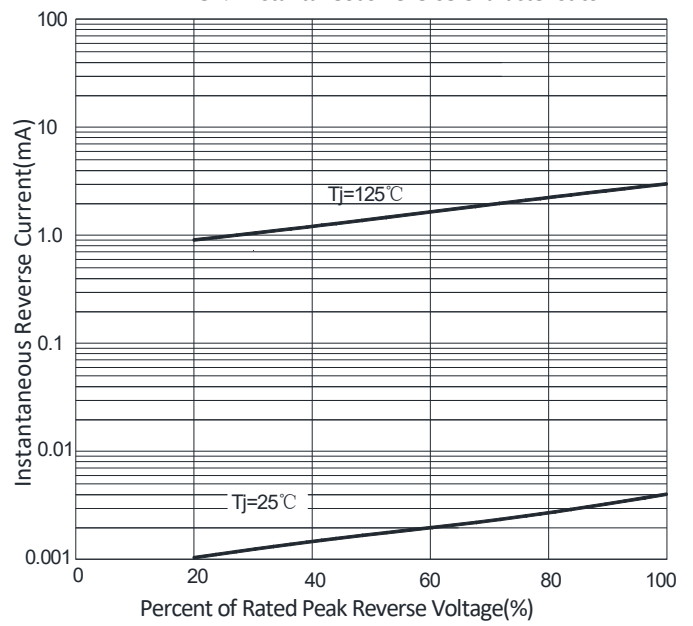
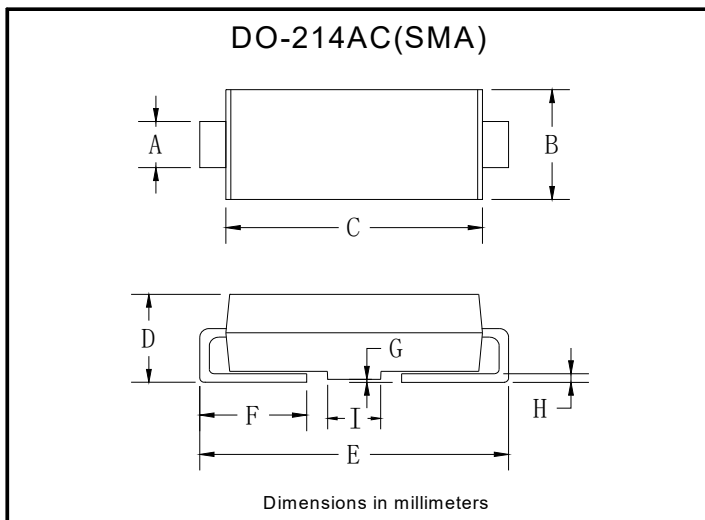


FIG4: Instantaneous Reverse Characteristics

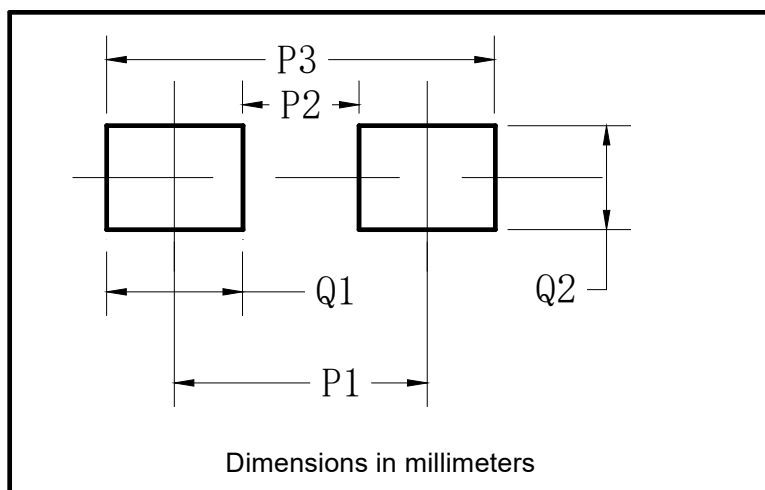


## ■ Outline Dimensions



| 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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