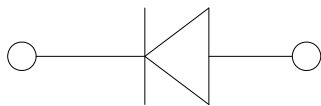


## Surface Mount Schottky Rectifier



### 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-214AA (SMB)  
Molding compound meets UL 94 V-0 flammability rating, -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>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                                                   | SYMBOL           | UNIT | SS14B     |
|---------------------------------------------------------------------------------------------|------------------|------|-----------|
| Device marking code                                                                         |                  |      | SS14B     |
| Repetitive peak reverse voltage                                                             | V <sub>RRM</sub> | V    | 40        |
| Average rectified output current<br>@60Hz sine wave, resistance load, TL (FIG.1)            | I <sub>O</sub>   | A    | 1.0       |
| Surge(non-repetitive)forward current<br>@60Hz half-sine wave, 1 cycle, T <sub>a</sub> =25°C | I <sub>FSM</sub> | A    | 50        |
| Storage temperature                                                                         | T <sub>stg</sub> | °C   | -55 ~+150 |
| Junction temperature                                                                        | T <sub>j</sub>   | °C   | -55~+125  |

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

| PARAMETER                                                                                            | SYMBOL           | UNIT | TEST CONDITIONS       | SS14B |
|------------------------------------------------------------------------------------------------------|------------------|------|-----------------------|-------|
| Maximum instantaneous forward voltage drop per diode                                                 | V <sub>F</sub>   | V    | I <sub>FM</sub> =1.0A | 0.50  |
| 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>a</sub> =25°C  | 0.50  |
|                                                                                                      |                  |      | T <sub>a</sub> =100°C | 10    |

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

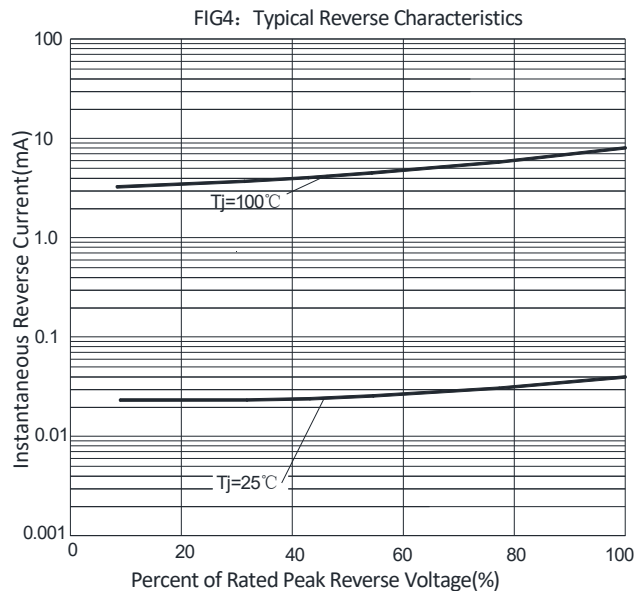
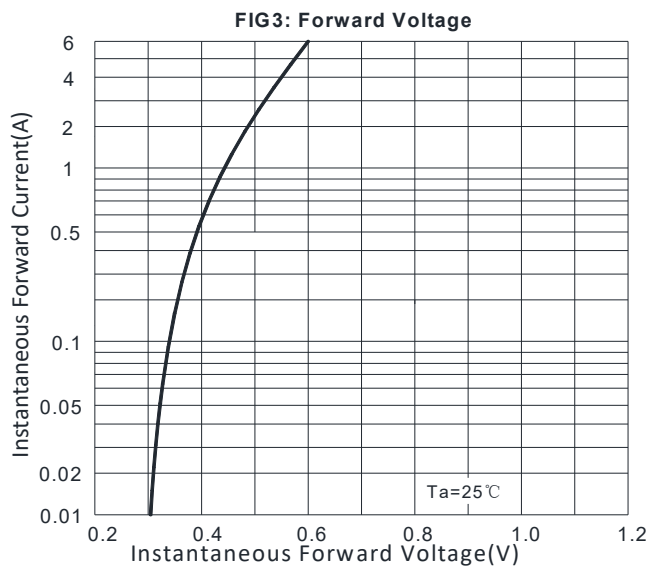
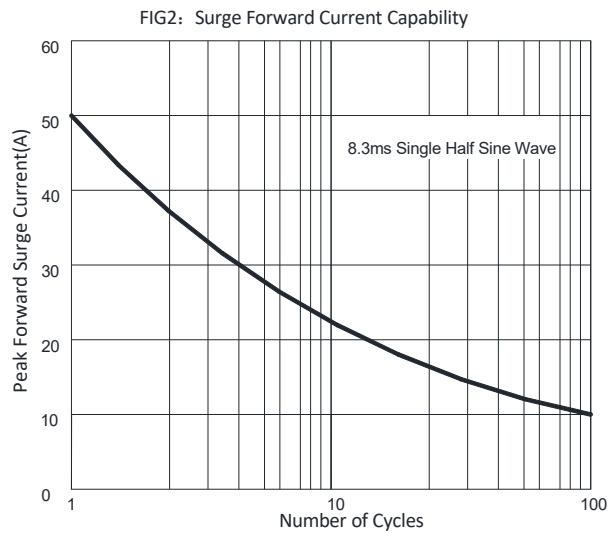
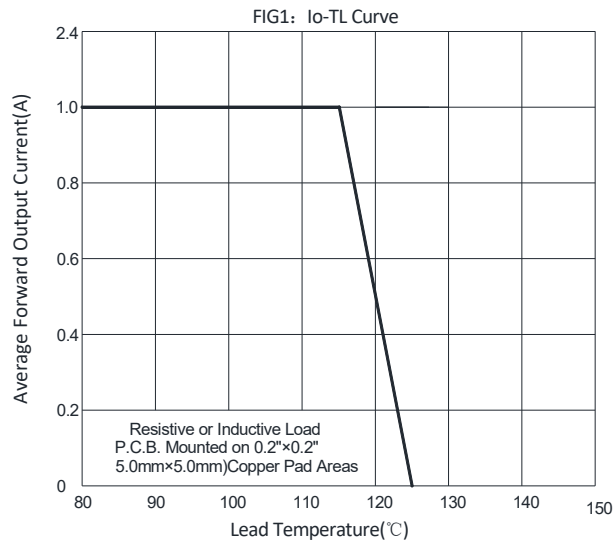
Note2:Pulse test:pulse width 40mS

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

| PARAMETER          | SYMBOL           | UNIT | SS14B             |
|--------------------|------------------|------|-------------------|
| Thermal resistance | R <sub>θJA</sub> | °C/W | 75 <sup>(1)</sup> |
|                    | R <sub>θJL</sub> |      | 17 <sup>(1)</sup> |

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

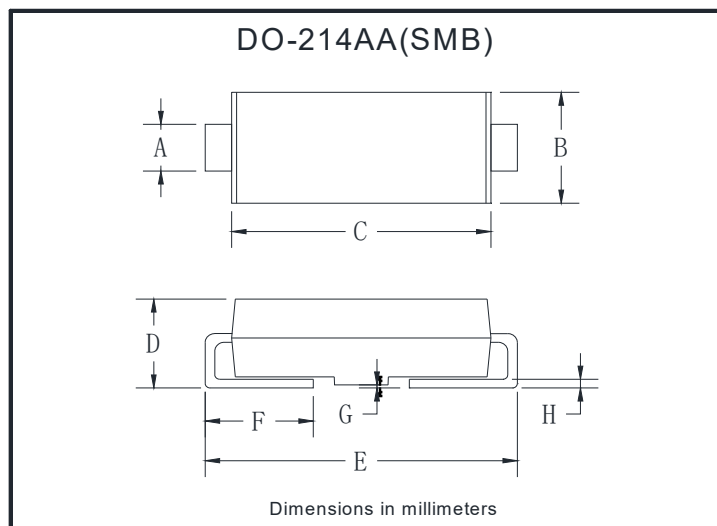
■ Characteristics(Typical)



## ■ Ordering Information (Example)

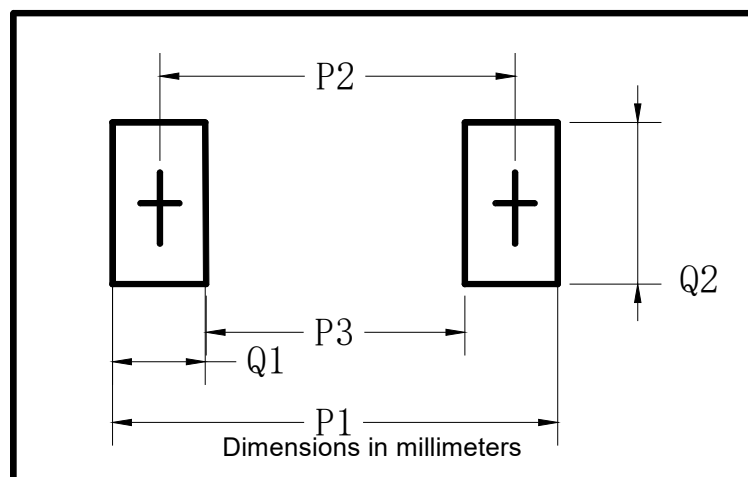
| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| SS14B        | F1           | Approximate 0.097 | 3000                 | /                       | 48000                      | 13" reel      |
| SS14B        | F2           | Approximate 0.097 | 750                  | 3000                    | 24000                      | 7" reel       |
| SS14B        | F3           | Approximate 0.097 | 500                  | 2000                    | 16000                      | 7" reel       |

## ■ Outline Dimensions



| DO-214AA(SMB) |      |      |
|---------------|------|------|
| Dim           | Min  | Max  |
| A             | 1.85 | 2.15 |
| B             | 3.30 | 3.94 |
| C             | 4.05 | 4.75 |
| D             | 1.99 | 2.61 |
| E             | 5.21 | 5.59 |
| F             | 0.90 | 1.41 |
| G             | 0.05 | 0.20 |
| H             | 0.15 | 0.31 |

## ■ Suggested pad layout



| DO-214AA(SMB) |             |
|---------------|-------------|
| Dim           | Millimeters |
| P1            | 6.8         |
| P2            | 4.3         |
| P3            | 1.8         |
| Q1            | 2.5         |
| Q2            | 2.3         |

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