

Features

- High efficiency operation
- Metal silicon junction,majority carrier conduction
- Ultra low forward voltage drop,low power losses
- High forward surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Applications

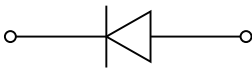
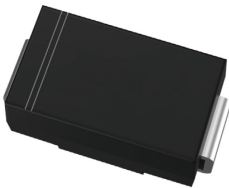
For use in low voltage high frequency inverters, free wheeling,DC/DC converters, and polarity protection applications.

Mechanical Data

- Case: DO-214AA(SMB)  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

Reverse Voltage  
40 V  
Forward Current  
2 Ampere

DO-214AA(SMB)



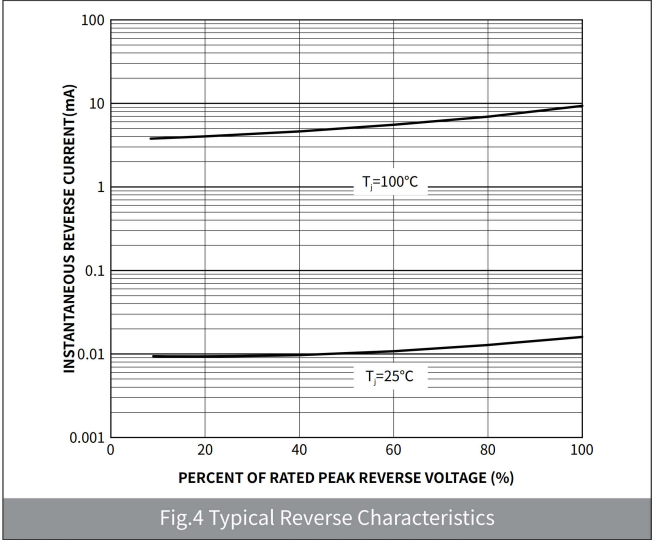
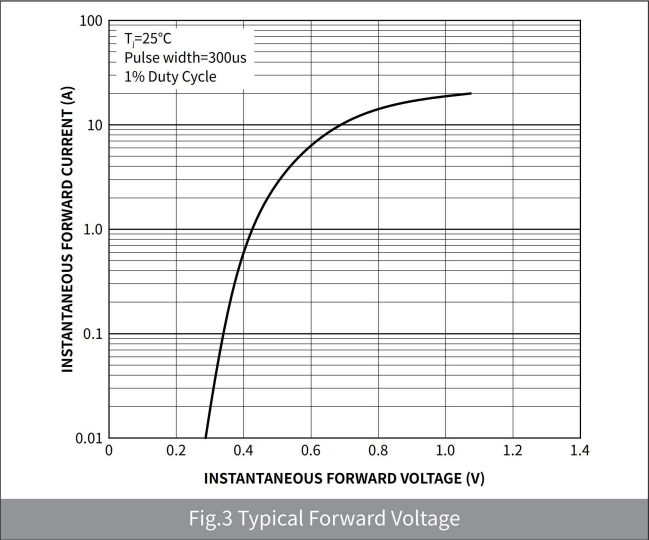
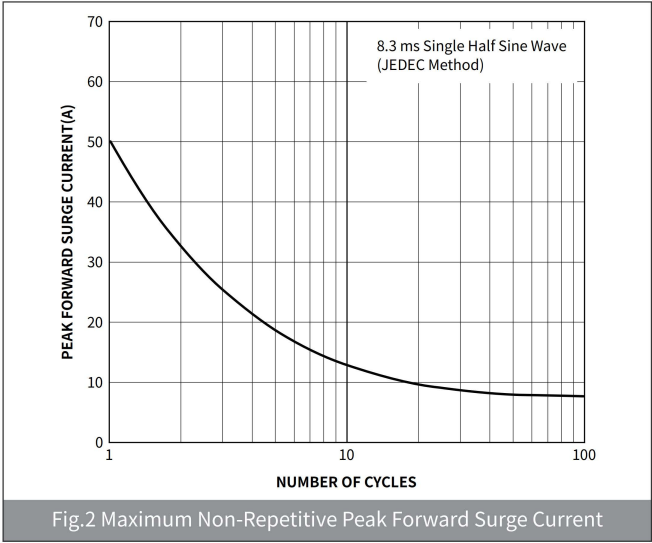
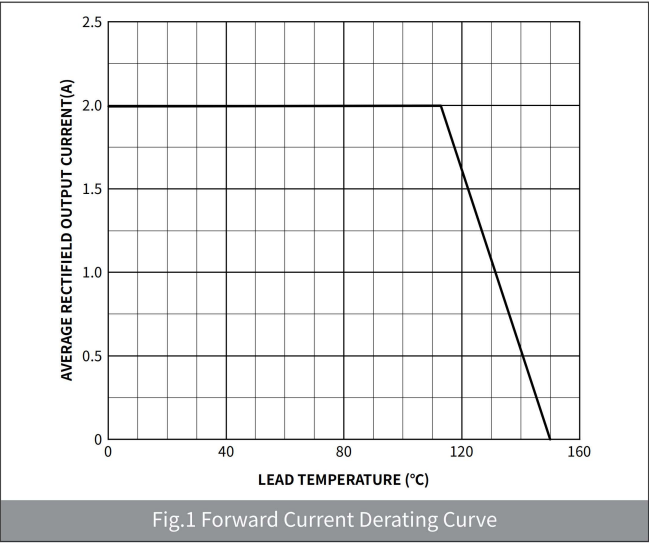
Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER                                                                            | SYMBOL           | UNIT  | SSL24B     |
|--------------------------------------------------------------------------------------|------------------|-------|------------|
| Device marking code                                                                  |                  |       | SSL24B     |
| Maximum Repetitive Peak Reverse Voltage                                              | $V_{RRM}$        | V     | 40         |
| Maximum RMS Voltage                                                                  | $V_{RMS}$        | V     | 28         |
| Maximum DC blocking Voltage                                                          | $V_{DC}$         | V     | 40         |
| Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1) | $I_{F(AV)}$      | A     | 2.0        |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave                   | $I_{FSM}$        | A     | 50         |
| Storage temperature                                                                  | $T_{stg}$        | °C    | -55 ~ +150 |
| Junction temperature                                                                 | $T_j$            | °C    | -55 ~ +125 |
| Typical Thermal Resistance                                                           | $R_{\theta J-A}$ | °C /W | 62         |
|                                                                                      | $R_{\theta J-L}$ | °C /W | 16         |

Electrical Characteristics (Ta=25°C Unless otherwise noted)

| PARAMETER                                               | TEST CONDITIONS                | SYMBOL   | UNIT | SSL24B |
|---------------------------------------------------------|--------------------------------|----------|------|--------|
| Maximum instantaneous forward voltage                   | $I_F=2.0A$                     | $V_F$    | V    | 0.45   |
| Maximum DC reverse current at rated DC blocking voltage | $V_R=V_{DC}, T_A=25^{\circ}C$  | $I_{R1}$ | mA   | 0.5    |
|                                                         | $V_R=V_{DC}, T_A=100^{\circ}C$ | $I_{R2}$ |      | 10     |
| Typical junction capacitance                            | 4.0V DC, 1MHz                  | $C_J$    | pF   | 290    |

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



Ordering Information

| PACKAGE | PACKAGE CODE | UNIT WEIGHT(g) | REEL(pcs) | BOX(pcs) | CARTON(pcs) | DELIVERY MODE |
|---------|--------------|----------------|-----------|----------|-------------|---------------|
| SMB     | R3           | 0.098          | 3000      | 6000     | 48000       | 13"           |

Package Outline Dimensions (SMB/DO-214AA)

| Symbol | Dimensions  |       |        |       |
|--------|-------------|-------|--------|-------|
|        | Millimeters |       | Inches |       |
|        | Min.        | Max.  | Min.   | Max.  |
| A      | 1.85        | 2.21  | 0.073  | 0.087 |
| B      | 4.25        | 4.85  | 0.167  | 0.191 |
| C      | 3.30        | 3.94  | 0.130  | 0.155 |
| D      | 2.15        | 2.65  | 0.085  | 0.104 |
| E      | 0.75        | 1.52  | 0.030  | 0.060 |
| F      | -           | 0.203 | -      | 0.008 |
| G      | 5.08        | 5.59  | 0.200  | 0.220 |
| H      | 0.15        | 0.31  | 0.006  | 0.012 |

Suggested Pad Layout

| Symbol | Dimensions  |      |        |       |
|--------|-------------|------|--------|-------|
|        | Millimeters |      | Inches |       |
|        | Min.        | Max. | Min.   | Max.  |
| M      | 2.26        | -    | 0.089  | -     |
| J      | 2.10        | -    | 0.085  | -     |
| K      | -           | 2.74 | -      | 0.107 |