

SMA Surface Mount Schottky Barrier Rectifier

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

Reverse Voltage  
40-100 V  
Forward Current  
3 Ampere

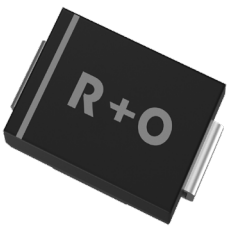
Applications

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

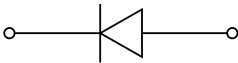
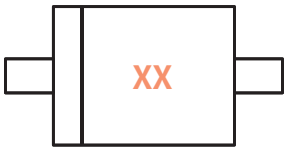
Mechanical Data

- Case: DO-214AC(SMA)  
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

DO-214AC(SMA)



Function Diagram



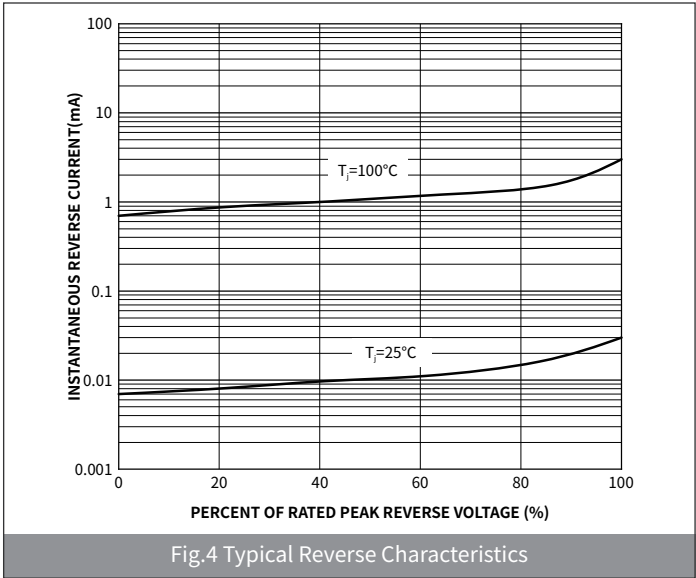
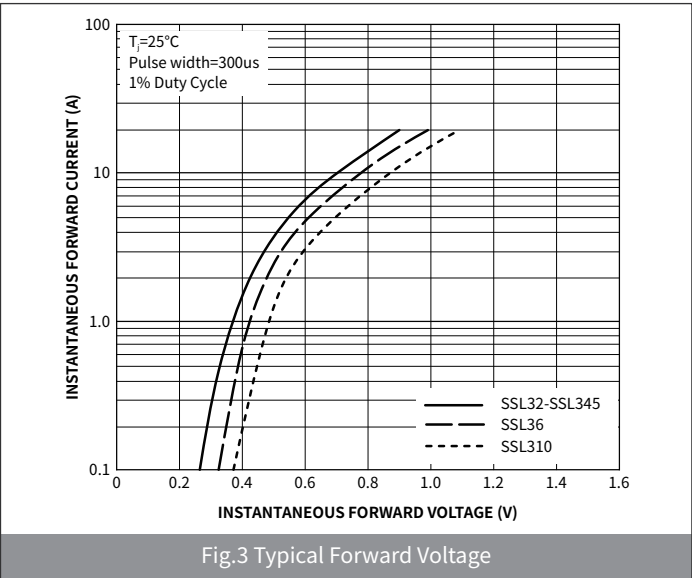
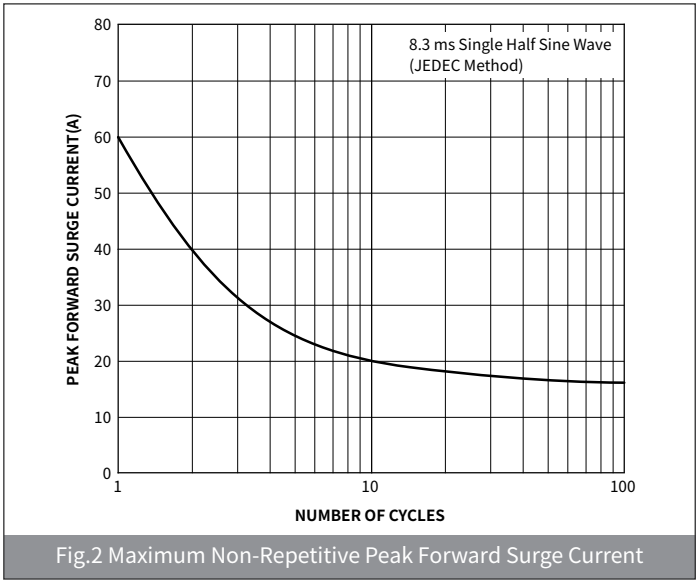
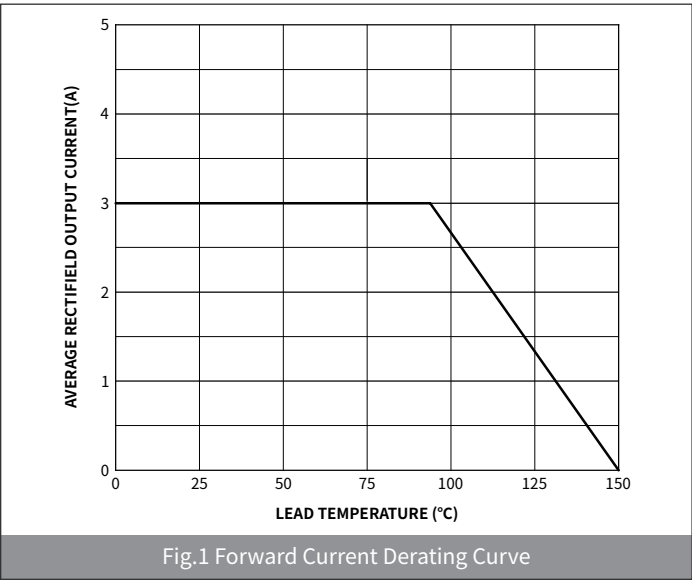
Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER                                                                             | SYMBOL           | UNIT  | SSL32      | SSL34 | SSL345 | SSL36 | SSL310    |
|---------------------------------------------------------------------------------------|------------------|-------|------------|-------|--------|-------|-----------|
| Device marking code                                                                   |                  |       | SSL32      | SSL34 | SSL345 | SSL36 | SSL310    |
| Maximum Repetitive Peak Reverse Voltage                                               | $V_{RRM}$        | V     | 20         | 40    | 45     | 60    | 100       |
| Maximum RMS Voltage                                                                   | $V_{RMS}$        | V     | 14         | 28    | 32     | 42    | 70        |
| Maximum DC blocking Voltage                                                           | $V_{DC}$         | V     | 20         | 40    | 45     | 60    | 100       |
| Maximum Average Forward Rectified Current @60Hz sine wave, Resistance load,TL (Fig.1) | $I_{F(AV)}$      | A     | 3.0        |       |        |       |           |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave                    | $I_{FSM}$        | A     | 80         |       |        |       |           |
| Storage temperature                                                                   | $T_{stg}$        | °C    | -55 ~ +150 |       |        |       |           |
| Junction temperature                                                                  | $T_j$            | °C    | -55 ~ +125 |       |        |       | 55 ~ +150 |
| Typical Thermal Resistance                                                            | $R_{\theta J-A}$ | °C /W | 75         |       |        |       |           |
|                                                                                       | $R_{\theta J-L}$ | °C /W | 20         |       |        |       |           |

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

| PARAMETER                                               | TEST CONDITIONS                | SYMBOL   | UNIT | SSL32 | SSL34 | SSL345 | SSL36 | SSL310 |
|---------------------------------------------------------|--------------------------------|----------|------|-------|-------|--------|-------|--------|
| Maximum instantaneous forward voltage                   | $I_F=3.0A$                     | $V_F$    | V    | 0.45  |       |        | 0.50  | 0.6    |
| Maximum DC reverse current at rated DC blocking voltage | $V_R=V_{DC}, T_A=25^{\circ}C$  | $I_{R1}$ | mA   | 0.3   |       |        |       | 0.5    |
|                                                         | $V_R=V_{DC}, T_A=100^{\circ}C$ | $I_{R2}$ |      | 5.0   |       |        |       | 10     |
| Typical junction capacitance                            | 4.0V DC, 1MHz                  | $C_J$    | pF   | 400   |       | 450    |       | 280    |

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 |
|---------|--------------|----------------|-----------|----------|-------------|---------------|
| SMA     | R2           | 0.07           | 5000      | 10000    | 80000       | 11"           |
| SMA     | R3           | 0.07           | 7500      | 15000    | 120000      | 13"           |

## ● Package Outline Dimensions (SMA/DO-214AC)

| Symbol | Dimensions  |       |        |       |
|--------|-------------|-------|--------|-------|
|        | Millimeters |       | Inches |       |
|        | Min.        | Max.  | Min.   | Max.  |
| A      | 1.25        | 1.65  | 0.049  | 0.065 |
| B      | 3.95        | 4.65  | 0.156  | 0.183 |
| C      | 2.35        | 2.85  | 0.093  | 0.112 |
| D      | 1.98        | 2.41  | 0.078  | 0.095 |
| E      | 0.76        | 1.52  | 0.030  | 0.060 |
| F      | -           | 0.203 | -      | 0.008 |
| G      | 4.70        | 5.30  | 0.185  | 0.209 |
| H      | 0.15        | 0.31  | 0.006  | 0.012 |

## ● Suggested Pad Layout

| Symbol | Dimensions  |      |        |       |
|--------|-------------|------|--------|-------|
|        | Millimeters |      | Inches |       |
|        | Min.        | Max. | Min.   | Max.  |
| M      | 1.70        | -    | 0.067  | -     |
| J      | 2.10        | -    | 0.082  | -     |
| K      | -           | 2.30 | -      | 0.090 |