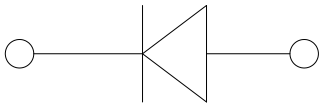


Surface Mount Schottky Rectifier



SMA



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_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SS | | | | | | | | |
|---|------------------|------|-----------|----|----|-----------|----|----|-----|-----|-----|
| | | | 32 | 33 | 34 | 35 | 36 | 38 | 310 | 315 | 320 |
| Device marking code | | | SS | | | | | | | | |
| Repetitive peak reverse voltage | VRRM | V | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 |
| Average rectified output current @60Hz sine wave, resistance load, TL (FIG.1) | I _O | A | 3.0 | | | | | | | | |
| Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T _a =25°C | I _{FSM} | A | 70 | | | | | | | | |
| Storage temperature | T _{stg} | °C | -55 ~+150 | | | | | | | | |
| Junction temperature | T _j | °C | -55~+125 | | | -55 ~+150 | | | | | |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | SS | | | | | | | | |
|---|------------------|------|-----------------------|------|----|----|------|----|------|-----|------|-----|
| | | | | 32 | 33 | 34 | 35 | 36 | 38 | 310 | 315 | 320 |
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =3.0A | 0.50 | | | 0.70 | | 0.85 | | 0.90 | |
| Maximum DC reverse current at rated DC blocking voltage per diode@ VRM=VRRM | I _{RRM} | mA | T _a =25°C | 0.50 | | | 0.10 | | | | | |
| | | | T _a =100°C | 10 | | | 5.0 | | | | | |

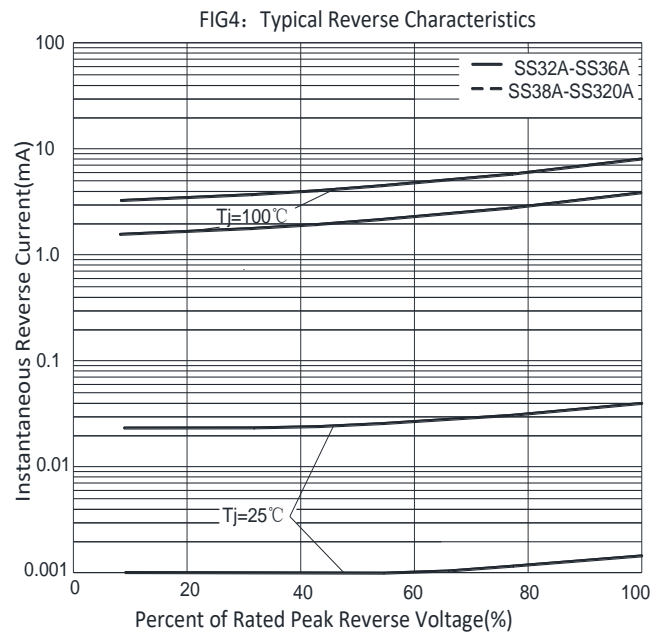
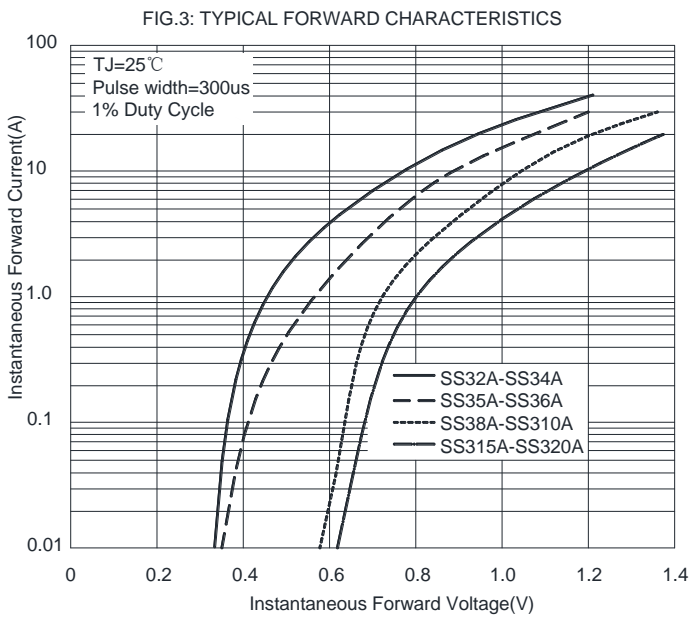
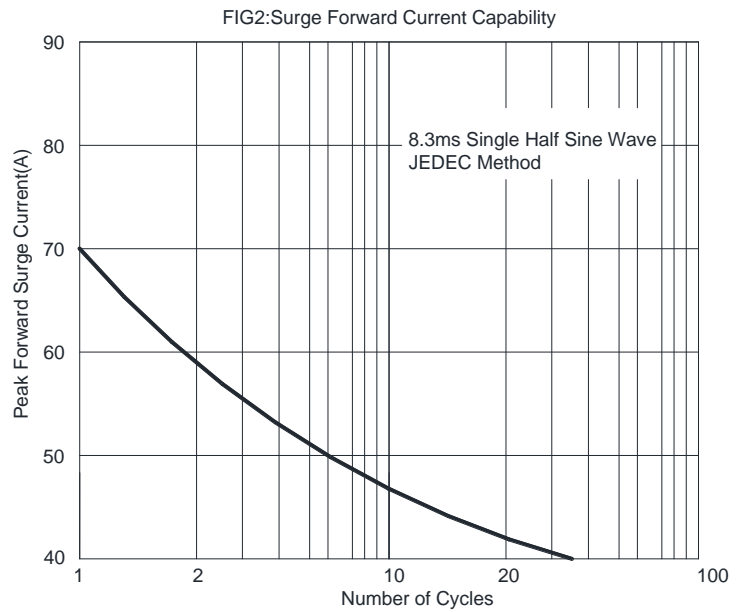
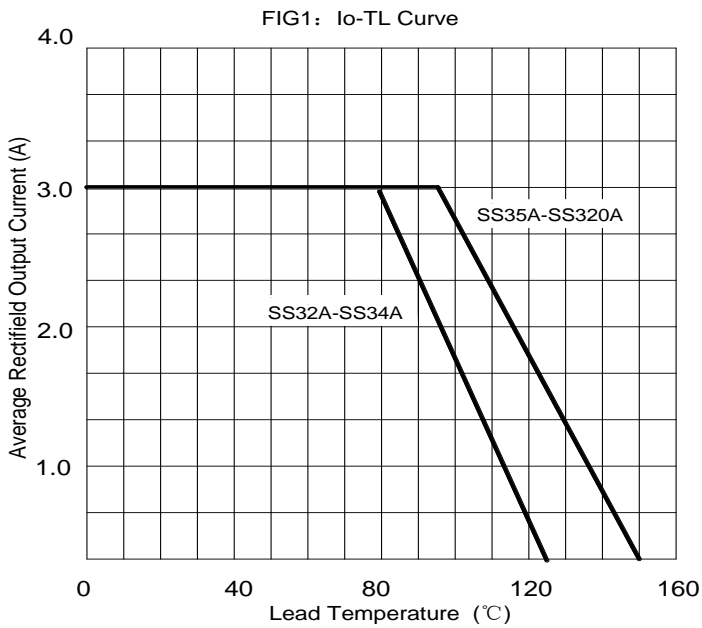
■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SS | | | | | | | |
|--------------------|----------------|---------------------------|-------------------|----|----|----|----|----|-----|-----|
| | | | 32 | 33 | 34 | 35 | 36 | 38 | 310 | 315 |
| Thermal resistance | R θ J-A | $^\circ\text{C}/\text{W}$ | 55 ⁽¹⁾ | | | | | | | |
| | R θ J-L | | 17 ⁽¹⁾ | | | | | | | |

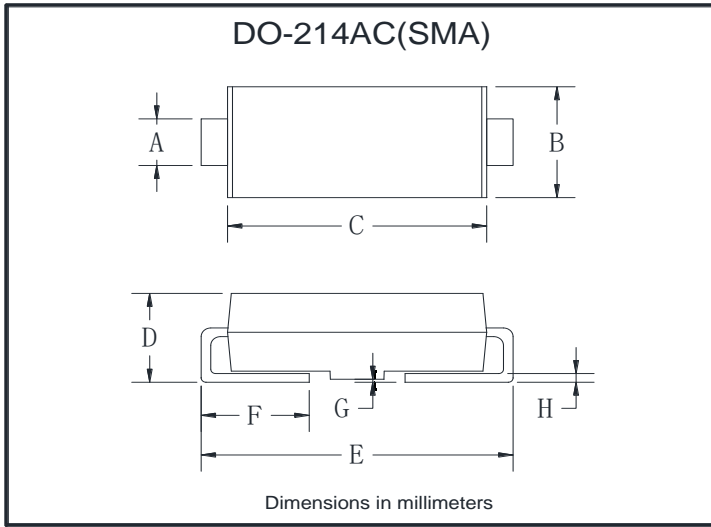
Note

(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)

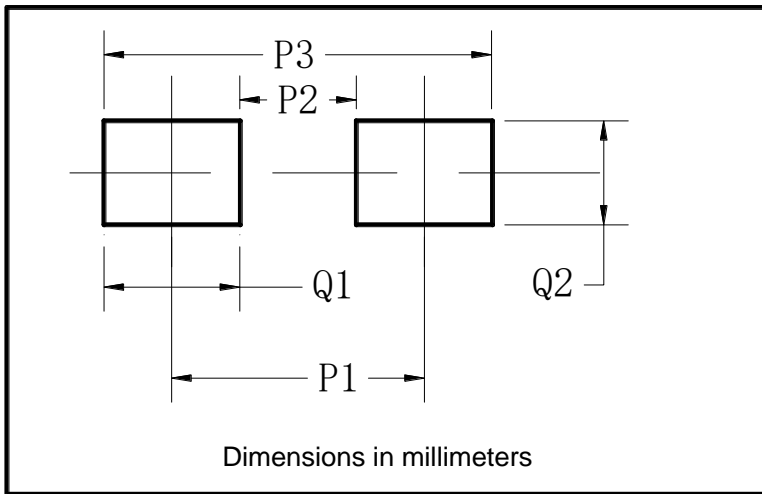


■ Outline Dimensions



| DO-214AC(SMA) | | |
|---------------|------|------|
| Dim | Min | Max |
| A | 1.25 | 1.58 |
| B | 2.40 | 2.83 |
| C | 4.25 | 4.75 |
| D | 1.90 | 2.30 |
| E | 4.93 | 5.28 |
| F | 0.76 | 1.41 |
| G | 0.08 | 0.20 |
| H | 0.15 | 0.31 |

■ Suggested Pad Layout



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