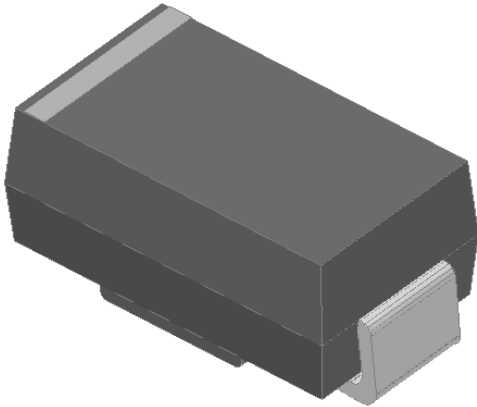


## Surface Mount Schottky Rectifier

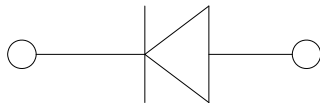


### Features

- 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
- Part no. with suffix "Q" means AEC-Q101 qualified

### Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, automotive 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 ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER  | SYMBOL    | UNIT             | SS32AQ    | SS33AQ | SS34AQ |
|--|-----------|------------------|-----------|--------|--------|
| Device marking code  |           |                  | SS32A     | SS33A  | SS34A  |
| Repetitive peak reverse voltage  | $V_{RRM}$ | V                | 20        | 30     | 40     |
| Maximum RMS voltage  | $V_{RMS}$ | V                | 14        | 21     | 28     |
| Maximum DC blocking voltage  | $V_{DC}$  | V                | 20        | 30     | 40     |
| Maximum average forward rectified current at $T_L$ (Fig.1)                                 | $I_O$     | A                | 3.0       |        |        |
| Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, $T_J=25^\circ\text{C}$ | $I_{FSM}$ | A                | 80        |        |        |
| Voltage rate of change (rated $V_R$ )  | $dV/dt$   | V/ $\mu\text{s}$ | 10000     |        |        |
| Storage temperature  | $T_{stg}$ | $^\circ\text{C}$ | -55 ~+150 |        |        |
| Junction temperature   | $T_J$     | $^\circ\text{C}$ | -55 ~+150 |        |        |

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

| PARAMETER                     | SYMBOL | TEST CONDITIONS         |                         | TYP  | MAX  | UNIT          |
|-------------------------------|--------|-------------------------|-------------------------|------|------|---------------|
| Instantaneous forward voltage | $V_F$  | $I_F=3A$                | $T_J=25^\circ\text{C}$  | 0.48 | 0.5  | V             |
|                               |        |                         | $T_J=125^\circ\text{C}$ | 0.41 | 0.45 |               |
| Reverse current               | $I_R$  | Rated $V_R$             | $T_J=25^\circ\text{C}$  | 15   | 100  | $\mu\text{A}$ |
|                               |        |                         | $T_J=125^\circ\text{C}$ | -    | 30   | mA            |
| Typical junction capacitance  | $C_J$  | $V_R=4V, f=1\text{MHz}$ |                         | 150  | -    | pF            |



# SS32AQ THRU SS34AQ

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

| PARAMETER          | SYMBOL           | UNIT               | SS32AQ            | SS33AQ | SS34AQ |
|--------------------|------------------|--------------------|-------------------|--------|--------|
| Thermal Resistance | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | 55 <sup>(1)</sup> |        |        |
|                    | $R_{\theta J-L}$ |                    | 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)

Fig.1: Forward Current Derating Curve

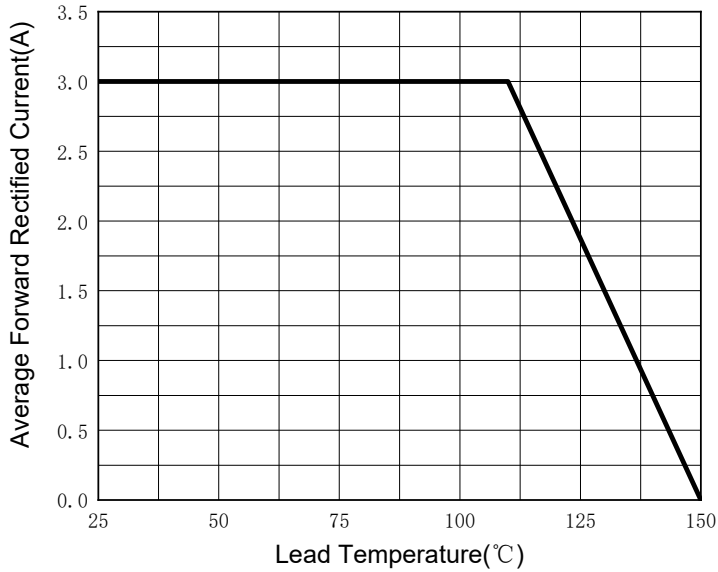


Fig.2: Maximum Non-Repetitive Peak Forward Surge Current

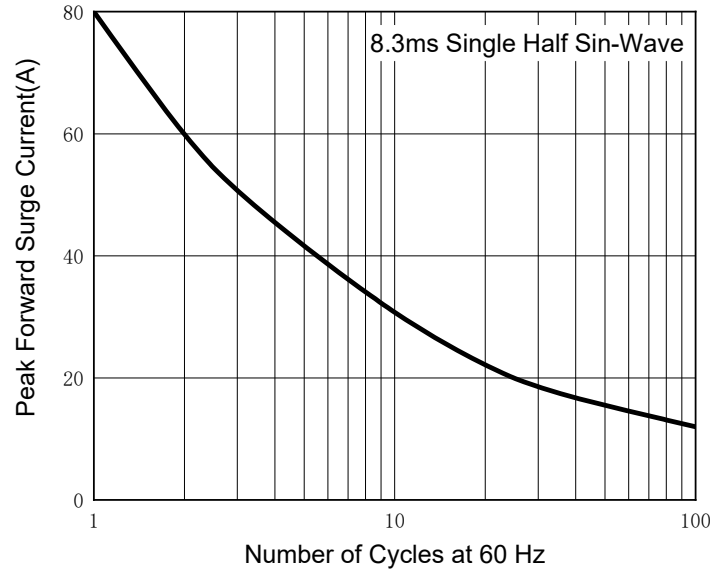


Fig.3: Typical Instantaneous Forward Characteristics

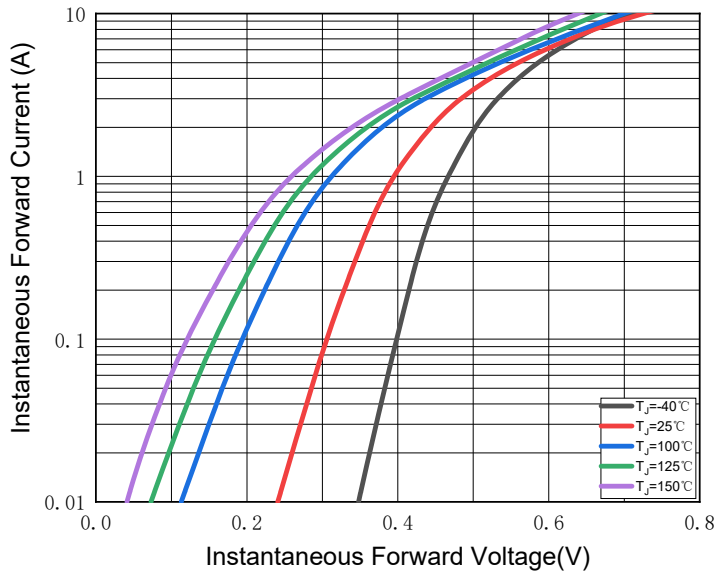
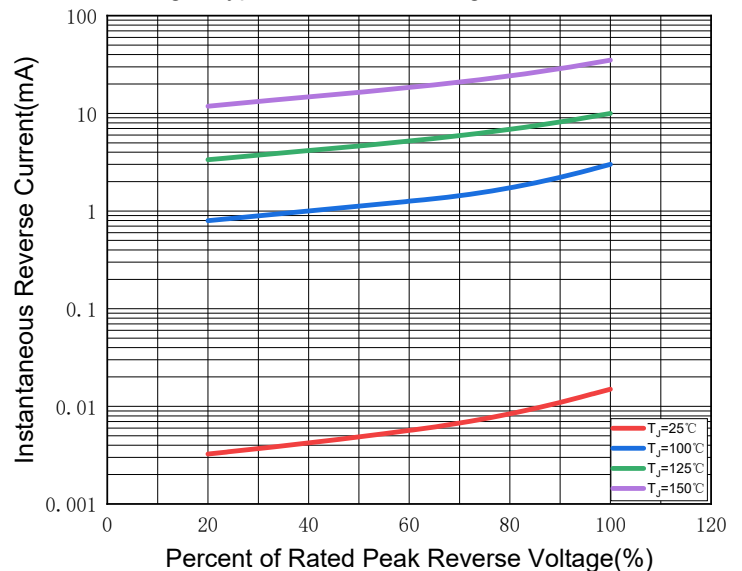


Fig.4: Typical Reverse Leakage Characteristics



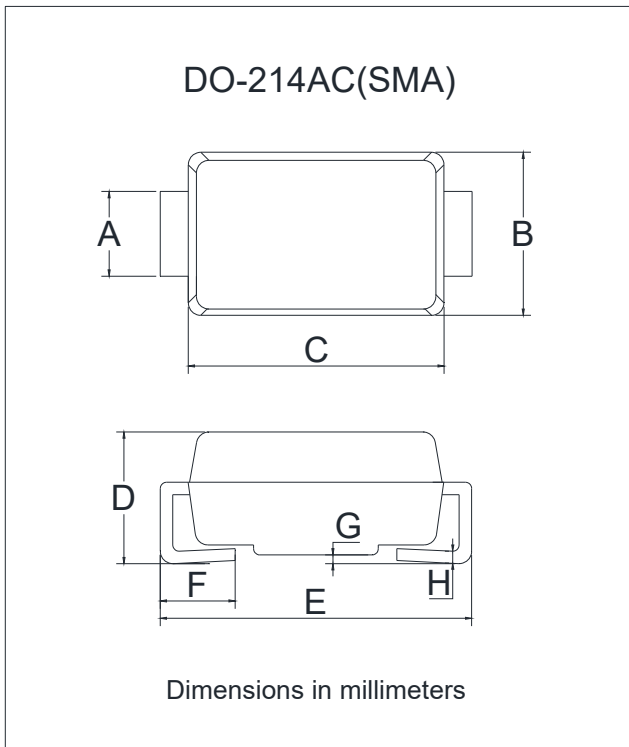
## ■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|----------------------------|---------------|
| SS32AQ-SS34AQ | F2           | Approximate 0.067 | 7500                 | 120000                     | 13" reel      |



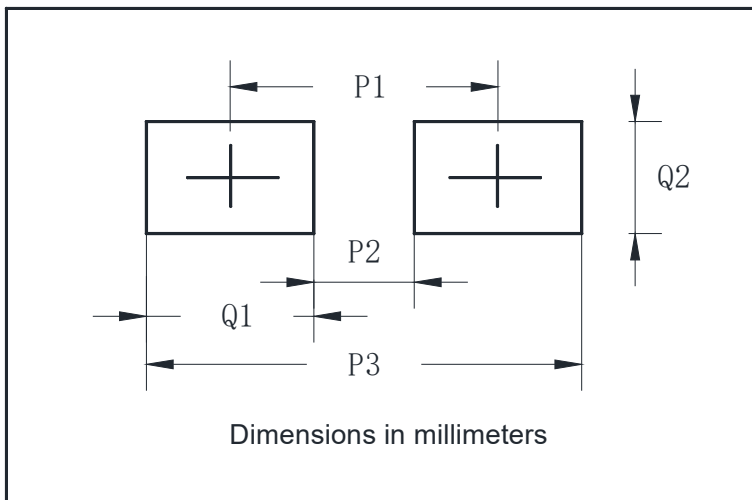
## SS32AQ THRU SS34AQ

### ■ Outline Dimensions



| DO-214AC(SMA) |      |      |
|---------------|------|------|
| Dim           | Min  | Max  |
| A             | 1.25 | 1.58 |
| B             | 2.40 | 2.83 |
| C             | 4.06 | 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        |



## SS32AQ THRU SS34AQ

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