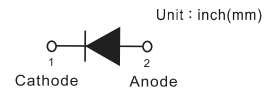
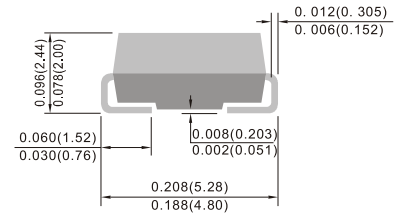
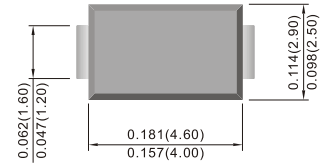


## Surface Mount Schottky Rectifier

### Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- AEC-Q101 Qualified
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

### DO-214AC (SMA)



### 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<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                                                   | SYMBOL           | UNIT | SS        |       |       |       |       |       |           |        |        |
|---------------------------------------------------------------------------------------------|------------------|------|-----------|-------|-------|-------|-------|-------|-----------|--------|--------|
|                                                                                             |                  |      | 32A-Q     | 33A-Q | 34A-Q | 35A-Q | 36A-Q | 38A-Q | 310A-Q    | 315A-Q | 320A-Q |
| Repetitive peak reverse voltage                                                             | V <sub>RRM</sub> | V    | 20        | 30    | 40    | 50    | 60    | 80    | 100       | 150    | 200    |
| Average rectified output current<br>@60Hz sine wave, resistance load, TL (FIG.1)            | I <sub>O</sub>   | A    | 3.0       |       |       |       |       |       |           |        |        |
| Surge(non-repetitive)forward current<br>@60Hz half-sine wave, 1 cycle, T <sub>a</sub> =25°C | I <sub>FSM</sub> | A    | 70        |       |       |       |       |       |           |        |        |
| Storage temperature                                                                         | T <sub>stg</sub> | °C   | -55 ~+150 |       |       |       |       |       |           |        |        |
| Junction temperature                                                                        | T <sub>J</sub>   | °C   | -55 ~+150 |       |       |       |       |       | -55 ~+175 |        |        |

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

| PARAMETER                                                                                            | SYMBOL           | UNIT | TEST CONDITIONS       | SS    |       |       |       |       |       |        |        |
|------------------------------------------------------------------------------------------------------|------------------|------|-----------------------|-------|-------|-------|-------|-------|-------|--------|--------|
|                                                                                                      |                  |      |                       | 32A-Q | 33A-Q | 34A-Q | 35A-Q | 36A-Q | 38A-Q | 310A-Q | 315A-Q |
| Maximum instantaneous forward voltage drop per diode                                                 | V <sub>F</sub>   | V    | I <sub>FM</sub> =3.0A | 0.55  |       | 0.70  |       | 0.85  |       | 0.95   |        |
| 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  |       |       |       | 0.10  |       |        |        |
|                                                                                                      |                  |      | T <sub>a</sub> =100°C | 10    |       |       |       | 5.0   |       |        |        |

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

| PARAMETER          | SYMBOL           | UNIT | SS               |       |       |       |       |       |        |        |
|--------------------|------------------|------|------------------|-------|-------|-------|-------|-------|--------|--------|
|                    |                  |      | 32A-Q            | 33A-Q | 34A-Q | 35A-Q | 36A-Q | 38A-Q | 310A-Q | 315A-Q |
| Thermal resistance | R <sub>θJA</sub> | °C/W | 55 <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)

FIG1:  $I_o$ -TL Curve

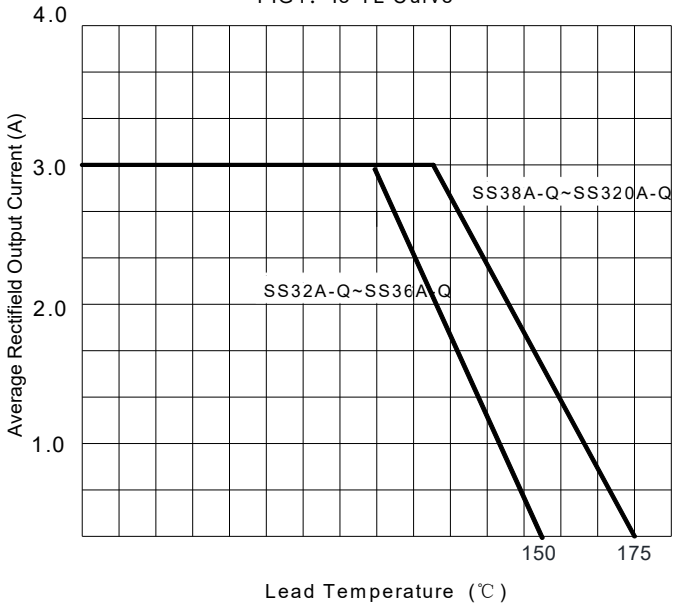


FIG2: Surge Forward Current Capability

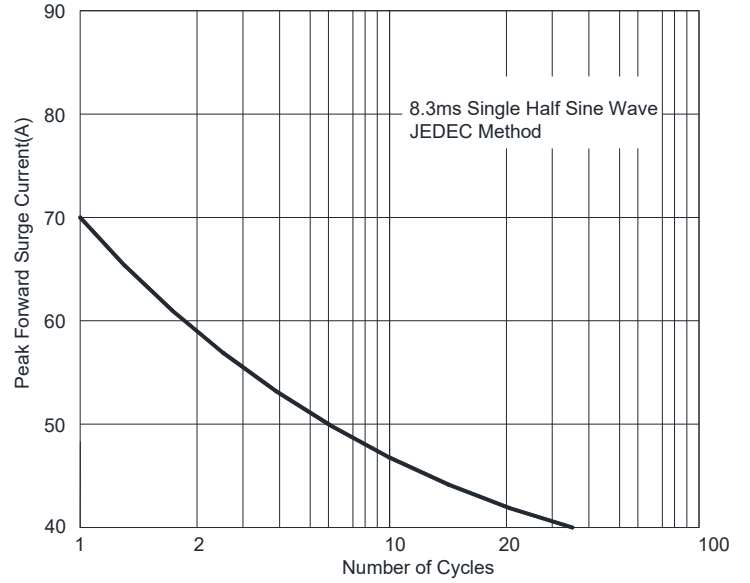


FIG.3: TYPICAL FORWARD CHARACTERISTICS

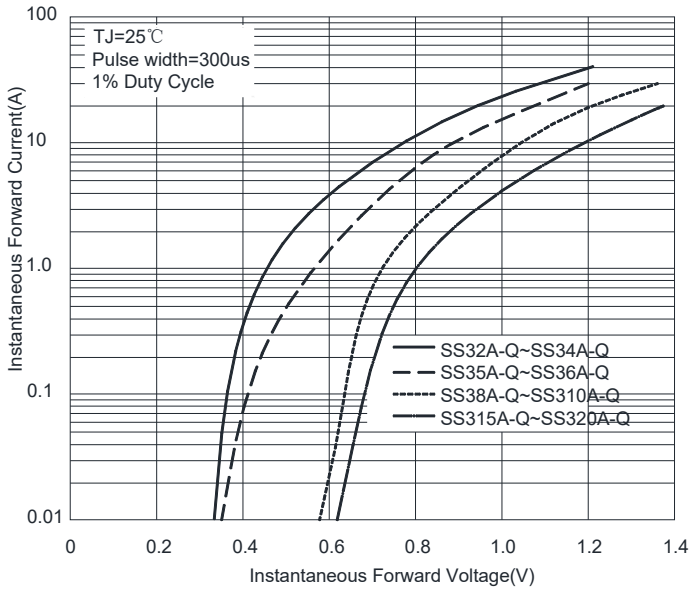


FIG4: Typical Reverse Characteristics

