

## Surface Mount Schottky Barrier Diode

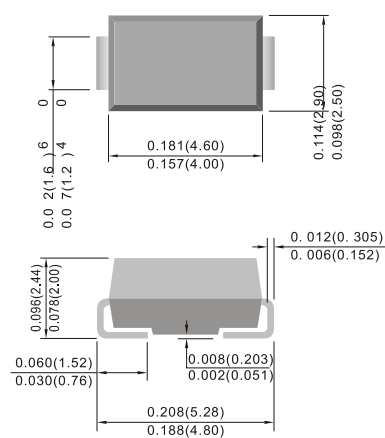
### Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- AEC-Q101 qualified
- Compliant with RoHS standards, halogen-free

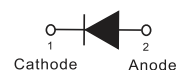
### Mechanical Data

- **Package:** SMA/DO-214AC
- **Terminal:** Tin plated leads, solderable per
- **Polarity:** Cathode line denotes the cathode end

### SMA/DO-214AC



Unit : inch mm



### Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter                                                                                     | Symbol    | Unit             | SS        |      |      |      |      |           |       |       |       |
|-----------------------------------------------------------------------------------------------|-----------|------------------|-----------|------|------|------|------|-----------|-------|-------|-------|
|                                                                                               |           |                  | 32AQ      | 33AQ | 34AQ | 35AQ | 36AQ | 38AQ      | 310AQ | 315AQ | 320AQ |
| Repetitive peak reverse voltage                                                               | $V_{RRM}$ | V                | 20        | 30   | 40   | 50   | 60   | 80        | 100   | 150   | 200   |
| Average rectified output current<br>@60Hz sine wave, resistance load, TL (FIG.1)              | $I_O$     | A                | 3.0       |      |      |      |      |           |       |       |       |
| Surge(non-repetitive)forward current<br>@60Hz half-sine wave, 1 cycle, $T_A=25^\circ\text{C}$ | $I_{FSM}$ | A                | 70        |      |      |      |      |           |       |       |       |
| Storage temperature                                                                           | $T_{stg}$ | $^\circ\text{C}$ | -55 ~+150 |      |      |      |      |           |       |       |       |
| Junction temperature                                                                          | $T_J$     | $^\circ\text{C}$ | -55 ~+150 |      |      |      |      | -55 ~+175 |       |       |       |

### Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted )

| Parameter                                                                                            | Symbol           | Unit | Test Conditions       | SS   |      |      |      |      |      |       |       |       |
|------------------------------------------------------------------------------------------------------|------------------|------|-----------------------|------|------|------|------|------|------|-------|-------|-------|
|                                                                                                      |                  |      |                       | 32AQ | 33AQ | 34AQ | 35AQ | 36AQ | 38AQ | 310AQ | 315AQ | 320AQ |
| 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   | Ta=25°C               | 0.50 |      |      |      |      | 0.10 |       |       |       |
|                                                                                                      |                  |      | Ta=100°C              | 10   |      |      |      |      | 5.0  |       |       |       |

## Thermal Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise noted )

| Parameter          | Symbol           | Unit                 | SS                |      |      |      |      |      |       |       |       |  |
|--------------------|------------------|----------------------|-------------------|------|------|------|------|------|-------|-------|-------|--|
|                    |                  |                      | 32AQ              | 33AQ | 34AQ | 35AQ | 36AQ | 38AQ | 310AQ | 315AQ | 320AQ |  |
| 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)

