

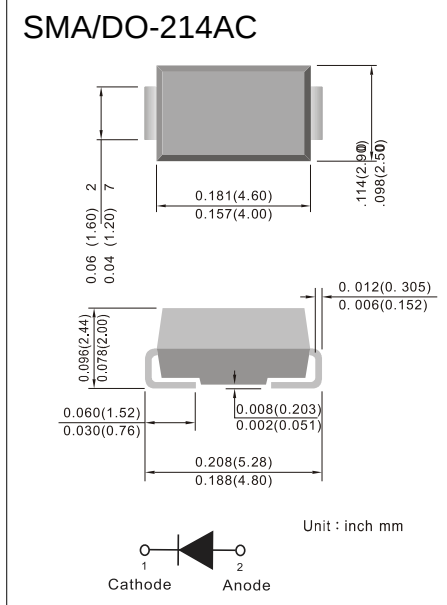
## Surface Mount Schottky Barrier Diode

### Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- 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



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

| Parameter                                                                             | Symbol           | Unit | SS        |     |     |     |     |           |      |      |      |
|---------------------------------------------------------------------------------------|------------------|------|-----------|-----|-----|-----|-----|-----------|------|------|------|
|                                                                                       |                  |      | 22A       | 23A | 24A | 25A | 26A | 28A       | 210A | 215A | 220A |
| Repetitive Peak Reverse Voltage                                                       | V <sub>RRM</sub> | V    | 20        | 30  | 40  | 50  | 60  | 80        | 100  | 150  | 200  |
| Average Rectified Output Current<br>@60Hz Half-sine wave, Resistance load, TL (FIG.1) | I <sub>O</sub>   | A    | 2.0       |     |     |     |     |           |      |      |      |
| Surge(Non-repetitive)Forward Current<br>@60Hz Half-sine wave,1 cycle, Ta=25°C         | I <sub>FSM</sub> | A    | 50        |     |     |     |     |           |      |      |      |
| Junction Temperature                                                                  | T <sub>j</sub>   | °C   | -55 ~+150 |     |     |     |     | -55 ~+175 |      |      |      |
| Storage Temperature                                                                   | T <sub>stg</sub> | °C   | -55 ~+150 |     |     |     |     |           |      |      |      |

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

| Parameter                                                                                            | Symbol           | Unit | Test Conditions       | SS   |     |     |      |     |      |      |      |      |
|------------------------------------------------------------------------------------------------------|------------------|------|-----------------------|------|-----|-----|------|-----|------|------|------|------|
|                                                                                                      |                  |      |                       | 22A  | 23A | 24A | 25A  | 26A | 28A  | 210A | 215A | 220A |
| Maximum instantaneous forward voltage drop per diode                                                 | V <sub>F</sub>   | V    | I <sub>FM</sub> =2.0A | 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    |      |      |      |



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

| Parameter          | Symbol                       | Unit                 | SS  |     |     |     |     |     |      |      |      |
|--------------------|------------------------------|----------------------|-----|-----|-----|-----|-----|-----|------|------|------|
|                    |                              |                      | 22A | 23A | 24A | 25A | 26A | 28A | 210A | 215A | 220A |
| Thermal Resistance | $R_{\theta\text{J-A}}^{(1)}$ | $^{\circ}\text{C/W}$ | 75  |     |     |     |     |     |      |      |      |
|                    | $R_{\theta\text{J-L}}^{(1)}$ |                      | 17  |     |     |     |     |     |      |      |      |

### 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:  $I_o$ - $T_L$  Curve

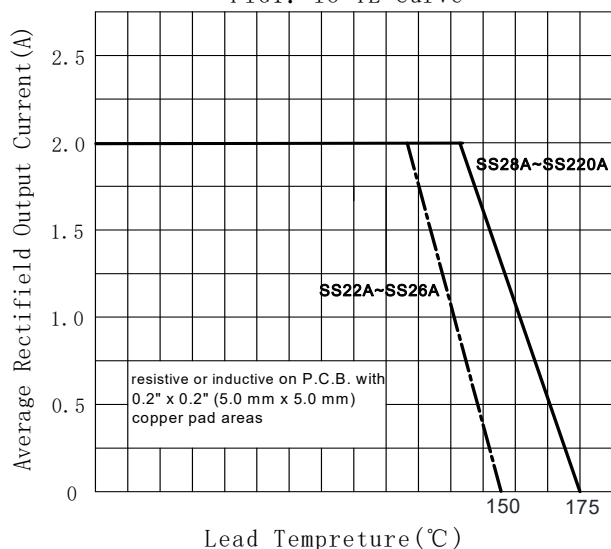


FIG2: Surge Forward Current Capability

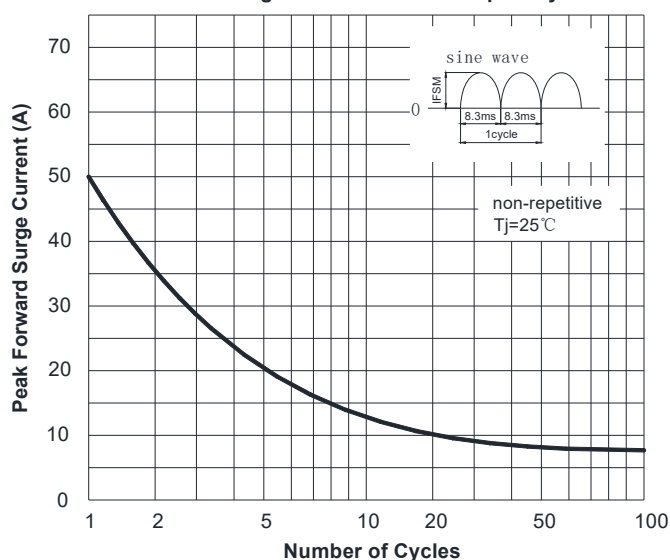


FIG3: Forward Voltage

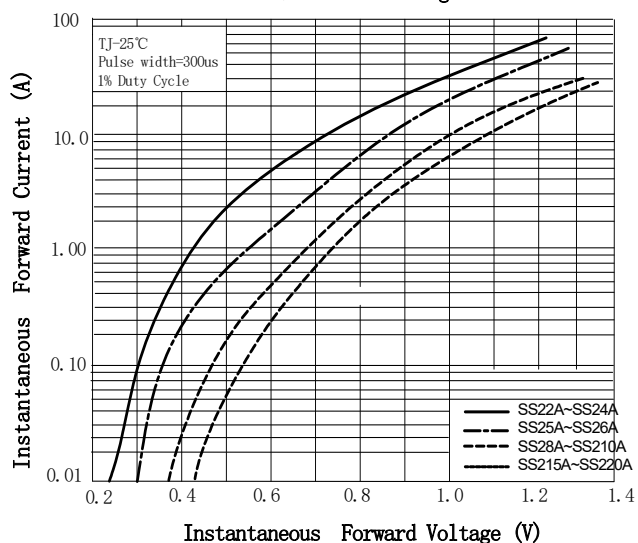


FIG4: Typical Reverse Characteristics

