

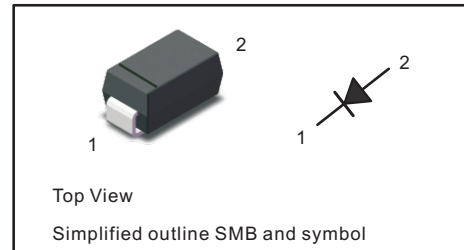
## 5.0Amp Surface Mounted Schottky Barrier Rectifiers

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
260°C/10 seconds at terminals

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



### Mechanical Data

**Case** : Molded plastic body

**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

**Weight** : 0.0035 ounce, 0.098 grams

### Marking



Product Name, X : 2.4.....20

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                                   | Symbols           | AS5H        |     |      |      |           |      |      |      | UNITS |   |
|-------------------------------------------------------------------------------------------------------------|-------------------|-------------|-----|------|------|-----------|------|------|------|-------|---|
|                                                                                                             |                   | 20T         | 40T | 45T  | 60T  | 80T       | 100T | 150T | 200T |       |   |
| Maximum repetitive peak reverse voltage                                                                     | V <sub>RRM</sub>  | 20          | 40  | 45   | 60   | 80        | 100  | 150  | 200  | V     |   |
| Maximum RMS voltage                                                                                         | V <sub>RMS</sub>  | 14          | 28  | 31.5 | 42   | 56        | 70   | 105  | 140  | V     |   |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>   | 20          | 40  | 45   | 60   | 80        | 100  | 150  | 200  | V     |   |
| Maximum average forward rectified current at T <sub>L</sub> =100°C                                          | I <sub>(AV)</sub> | 5.0         |     |      |      |           |      |      |      | A     |   |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                          | I <sub>FSM</sub>  | 120.0       |     |      |      |           |      |      |      | A     |   |
| Maximum instantaneous forward voltage at 5.0A                                                               | V <sub>F</sub>    | 0.55        |     |      | 0.70 |           | 0.85 |      | 0.95 |       | V |
| Maximum DC reverse current    T <sub>A</sub> =25°C<br>at rated DC blocking voltage    T <sub>A</sub> =100°C | I <sub>R</sub>    | 0.2<br>10   |     |      |      | 0.05<br>5 |      |      |      | mA    |   |
| Typical thermal resistance                                                                                  | R <sub>qJA</sub>  | 60.0        |     |      |      |           |      |      |      | °C/W  |   |
| Operating junction    temperature range                                                                     | T <sub>J</sub>    | -55 to +150 |     |      |      |           |      |      |      | °C    |   |
| Storage temperature range                                                                                   | T <sub>STG</sub>  | -55 to +150 |     |      |      |           |      |      |      | °C    |   |

## 5.0Amp Surface Mounted Schottky Barrier Rectifiers Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

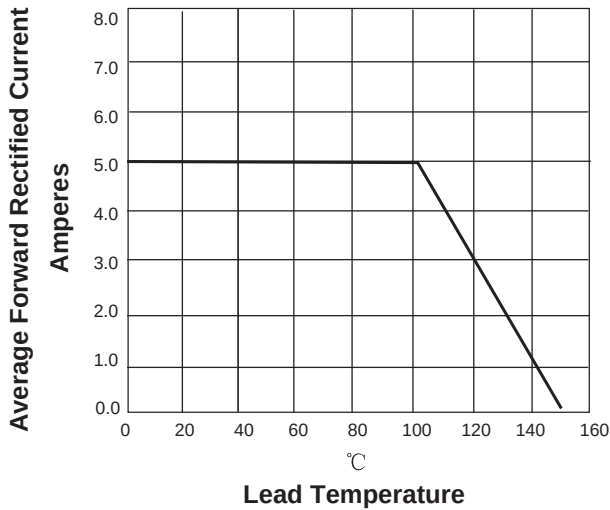


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

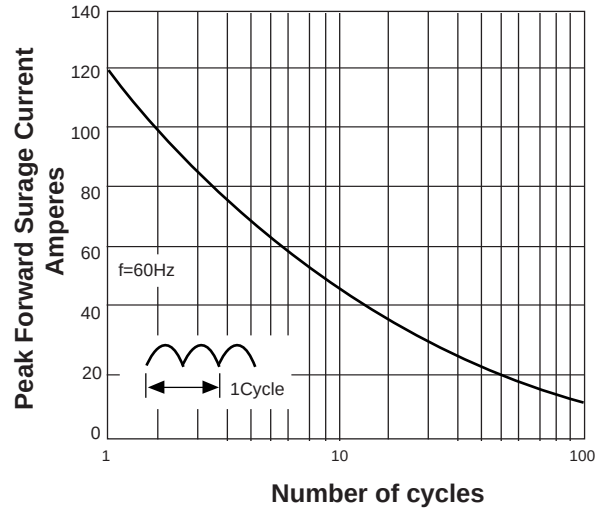


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

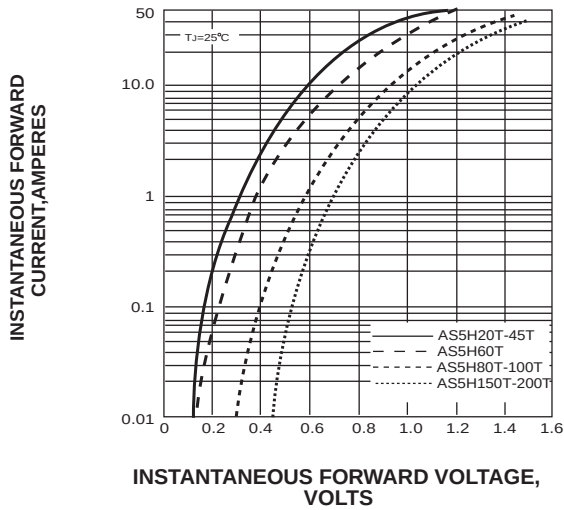
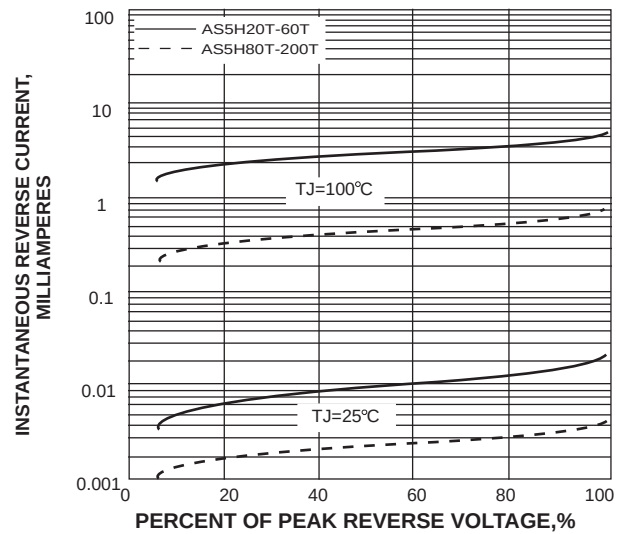
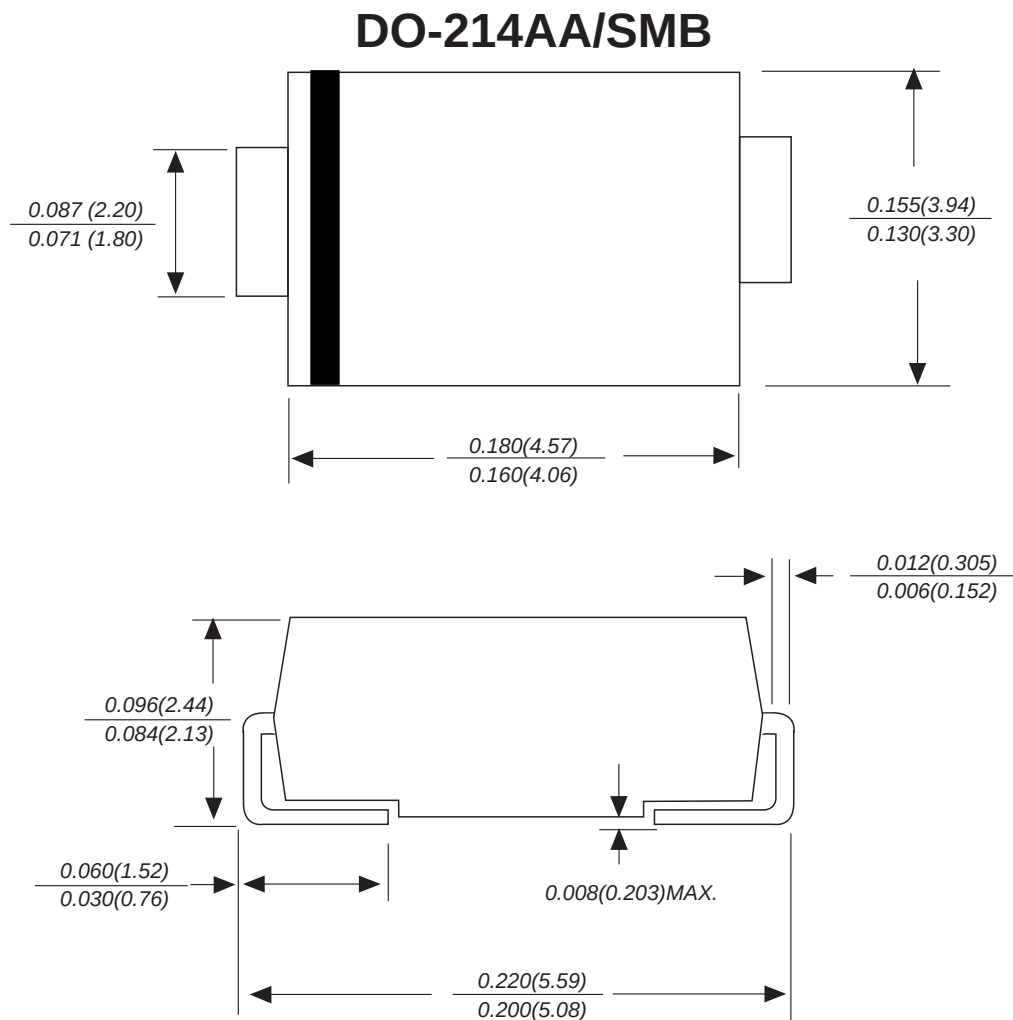


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

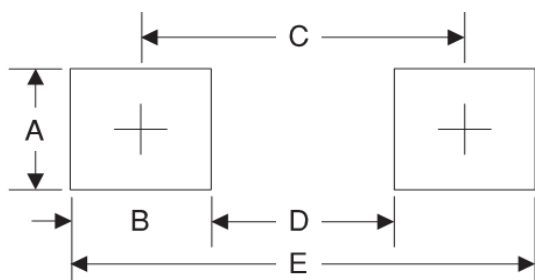


# 5.0Amp Surface Mounted Schottky Barrier Rectifiers

Dimensions in inches and (millimeters)



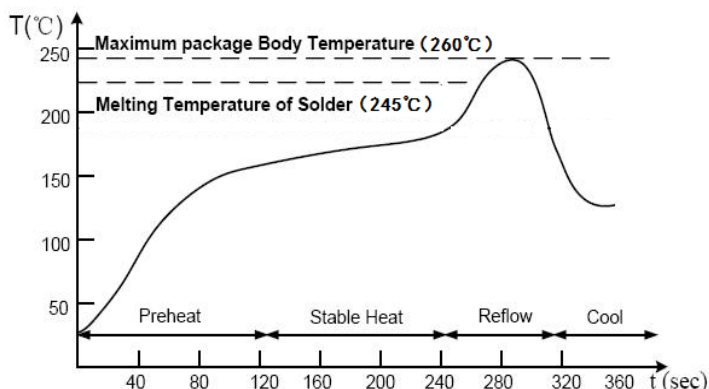
## Suggested Pad Layout



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A      | 2.30      | 0.091       |
| B      | 2.00      | 0.078       |
| C      | 4.10      | 0.161       |
| D      | 2.10      | 0.083       |
| E      | 6.10      | 0.240       |

## 5.0Amp Surface Mounted Schottky Barrier Rectifiers

### Suggested Soldering Temperature Profile

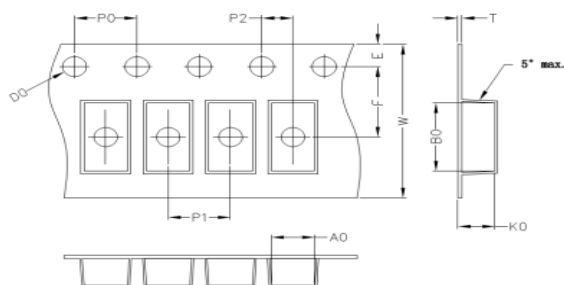


#### Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

### Package Information

#### Carrier Dimension(mm)



| A0   | B0   | K0   | D0   | E    | F         |
|------|------|------|------|------|-----------|
| 3.80 | 5.40 | 2.45 | 1.55 | 1.75 | 5.50      |
| P0   | P1   | P2   | T    | W    | Tolerance |
| 4.0  | 8.0  | 2.0  | 0.25 | 12   | 0.1       |

#### Package Specifications

| Package | Reel Size | Reel DIA. (mm) | Q'TY/Reel (Kpcs) | Box Size (mm) | QTY/Box (Kpcs) | Carton Size (mm) | Q'TY/Carton (Kpcs) |
|---------|-----------|----------------|------------------|---------------|----------------|------------------|--------------------|
| SMB     | 13'       | 330            | 3.0              | 340           | 6.0            | 360*360*360      | 48                 |