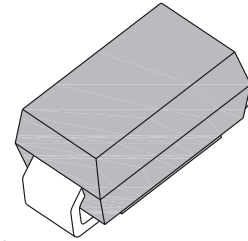


1.0A Surface Mount Schottky Barrier Rectifier

Features

- Low Profile in SMA Package
- Low power loss, high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250° C/10 seconds at terminals



**DO214AC
(SMA)**

Mechanical Data

| | |
|-------------------|--|
| Case: | JEDEC DO-214AC, Molded plastic body |
| Terminals: | Solder plated, solderable per MIL-STD-750, Method 2026 |
| Polarity | Color band denotes the cathode end |
| Weight | 0.002 Ounce, 0.064 gram |

Maximum Ratings and Electrical Characteristics *(T_{Ambient}=25°C unless noted)*

| Symbols | Description | SMA5817 | SMA5818 | SMA5819 | Unit |
|--------------|---|-------------|---------|---------|-------|
| VRMS | Maximum RMS voltage | 20 | 30 | 40 | V |
| VRRM | Maximum repetitive peak reverse voltage | 14 | 21 | 28 | V |
| VDC | Maximum DC blocking voltage | 20 | 30 | 40 | V |
| I(AV) | Maximum average forward rectified current at T _L = 90° C (FIG.1) | 1.0 | | | A |
| IFSM | Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (Note1) | 25 | | | A |
| VF | Maximum instantaneous forward voltage at 1.0A (Note2) | 0.45 | 0.55 | 0.60 | V |
| IR | Maximum DC reverse current at rated DC blocking voltage @ T _A = 25°C | 1.0 | | | mA |
| RθJA | Maximum thermal resistance, Junction to Ambient (Note3) | 88.0 | | | ° C/W |
| RθJL | Maximum thermal resistance, Junction to Lead | 28.0 | | | ° C/W |
| TJ | Operating junction temperature range | -65 to +125 | | | ° C |
| TSTG | Storage Temperature Range | -65 to +150 | | | ° C |

1.0A Surface Mount Schottky Barrier Rectifier

SMA5817-SMA5819

- NOTES:** 1. 8.3ms single half sine-wave superimposed on rated load (JEDEC method)
2. Pulse Test with PW = 300 μ sec, 1% Duty Cycle.
3. Mounted on P.C Board with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

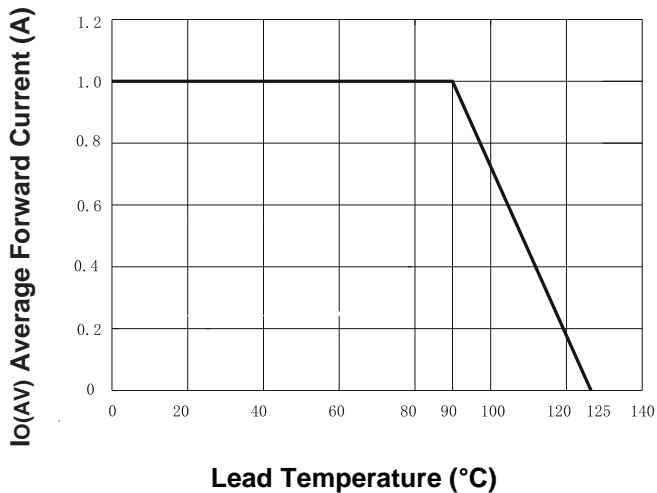


Fig.2- Maximum Non-repetitive Peak Forward Surge Current

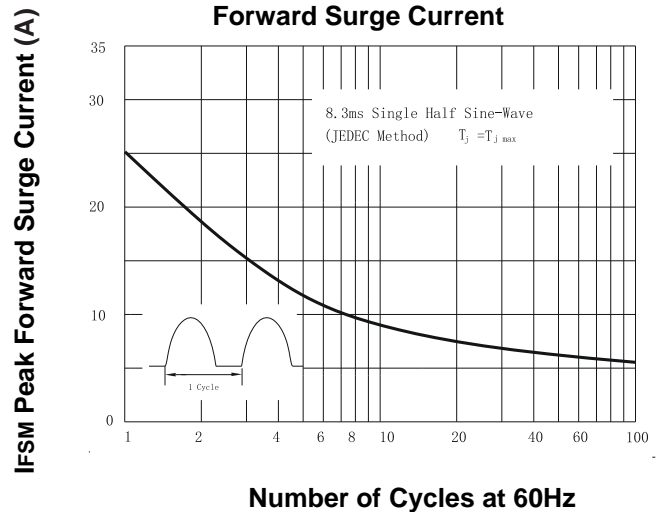


Fig.3- Typical Instantaneous Forward Characteristics

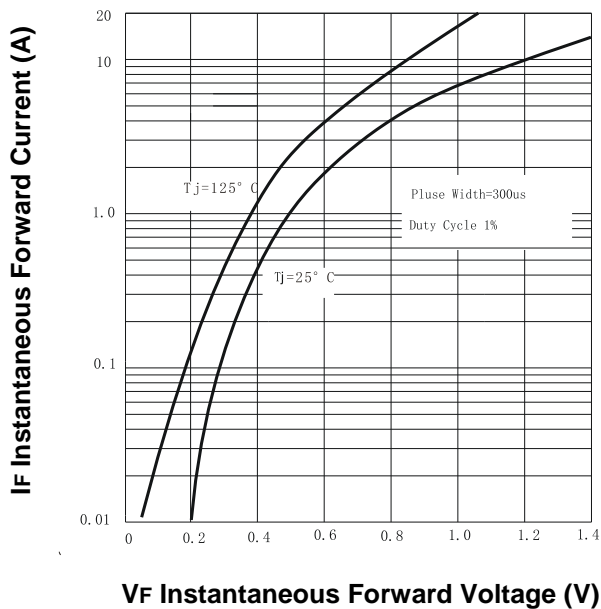
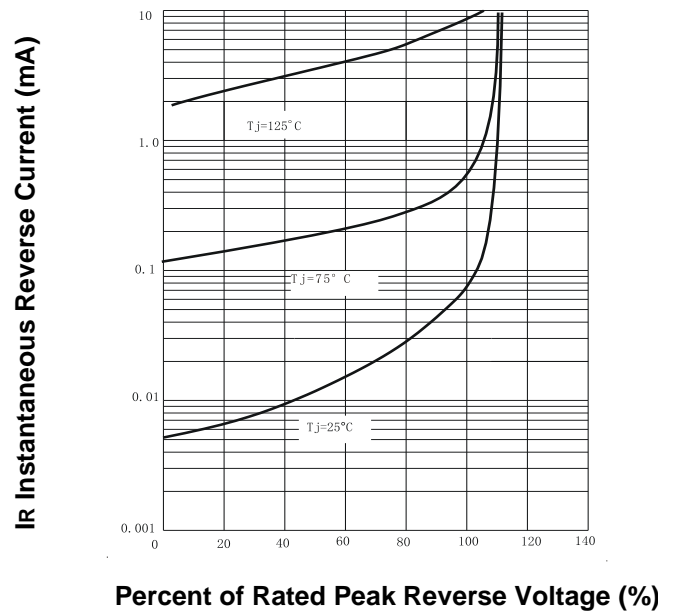


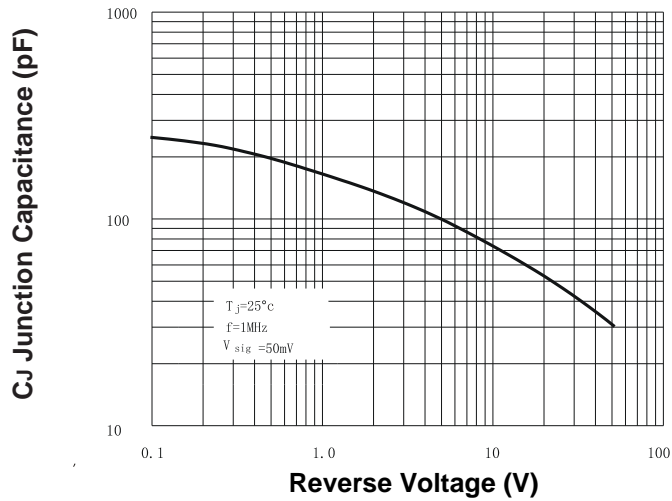
Fig.4- Typical Reverse Current Characteristics



1.0A Surface Mount Schottky Barrier Rectifier

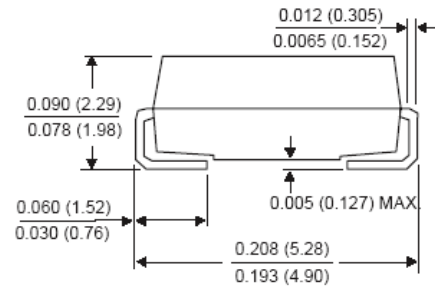
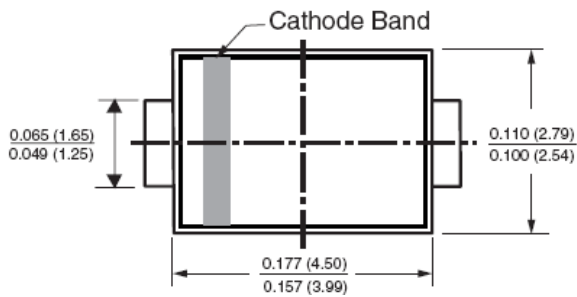
SMA5817-SMA5819

Fig.5-Typical junction capacitance



Dimensions in inches (mm)

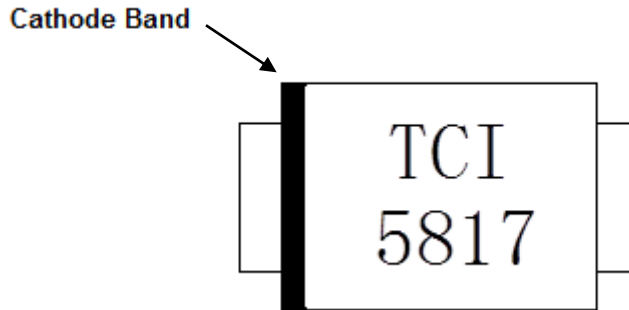
DO214AC (SMA)



1.0A Surface Mount Schottky Barrier Rectifier

SMA5817-SMA5819

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