

## SX32 ~ SX36

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20 to 60 Volts **CURRENT** 3.0 Amperes

SMA / DO-214AC

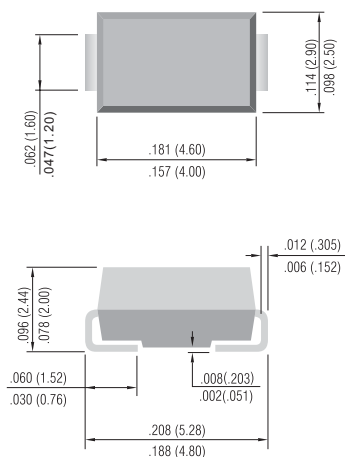
Unit: inch ( mm )

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- In compliance with EU RoHS 2002/95/EC directives

#### MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0023 ounce, 0.0679 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

| PARAMETER                                                                                             | SYMBOL                               | SX32        | SX33 | SX34        | SX35      | SX36 | UNITS  |
|-------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|------|-------------|-----------|------|--------|
| Maximum Recurrent Peak Reverse Voltage                                                                | V <sub>RRM</sub>                     | 20          | 30   | 40          | 50        | 60   | V      |
| Maximum RMS Voltage                                                                                   | V <sub>RMS</sub>                     | 14          | 21   | 28          | 35        | 42   | V      |
| Maximum DC Blocking Voltage                                                                           | V <sub>DC</sub>                      | 20          | 30   | 40          | 50        | 60   | V      |
| Maximum Average Forward Current at T <sub>L</sub> =75°C                                               | I <sub>F(AV)</sub>                   | 3.0         |      |             |           |      | A      |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)     | I <sub>FSM</sub>                     | 80          |      |             |           |      | A      |
| Maximum Forward Voltage at 3.0A (Note 1)                                                              | V <sub>F</sub>                       | 0.5         |      |             | 0.75      |      | V      |
| Maximum DC Reverse Current T <sub>J</sub> =25°C<br>at Rated DC Blocking Voltage T <sub>J</sub> =100°C | I <sub>R</sub>                       | 0.2<br>20   |      |             | 0.1<br>20 |      | mA     |
| Typical Thermal Resistance (Note 2)                                                                   | R <sub>θJL</sub><br>R <sub>θJA</sub> | 20<br>75    |      |             |           |      | °C / W |
| Operating Junction and Storage Temperature Range                                                      | T <sub>J</sub> , T <sub>STG</sub>    | -55 to +125 |      | -55 to +150 |           |      | °C     |

#### NOTES:

1. Pulse Test with  $PW=300\mu sec$ , 1% Duty Cycle.
2. Mounted on P.C. Board with  $8.0mm^2$  (.013mm thick) copper pad areas.

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### RATING AND CHARACTERISTIC CURVES

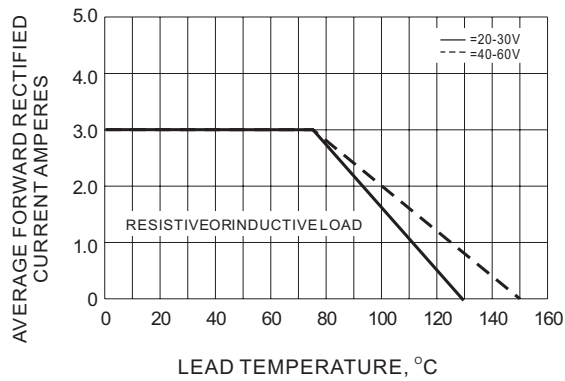


Fig.1- FORWARD CURRENT DERATING CURVE

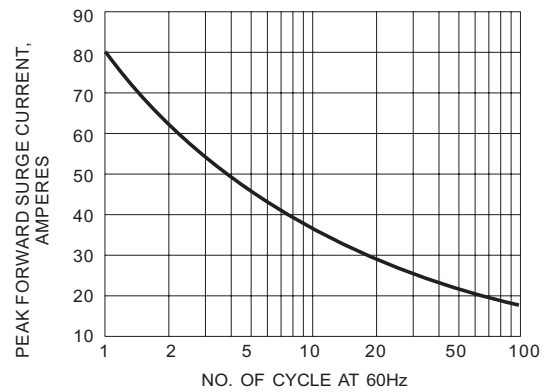


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

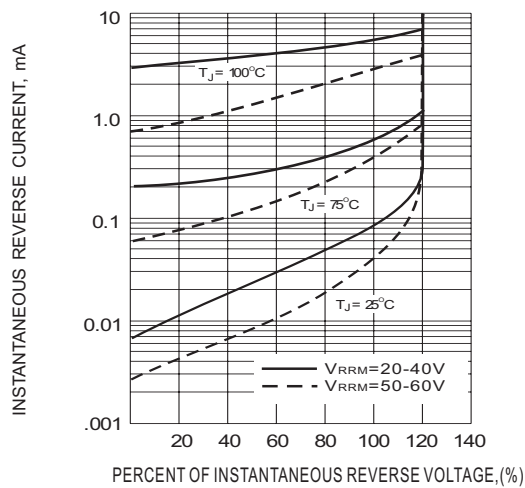


Fig.3- TYPICAL REVERSE CHARACTERISTICS

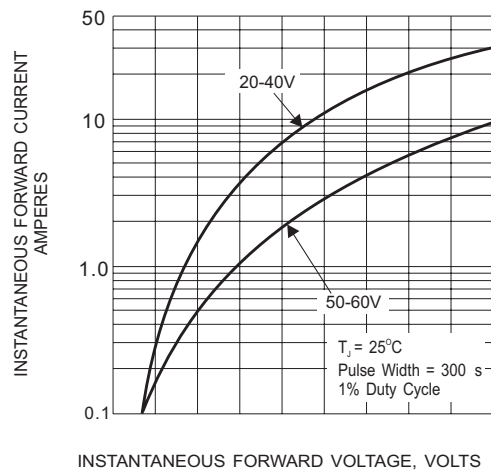


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

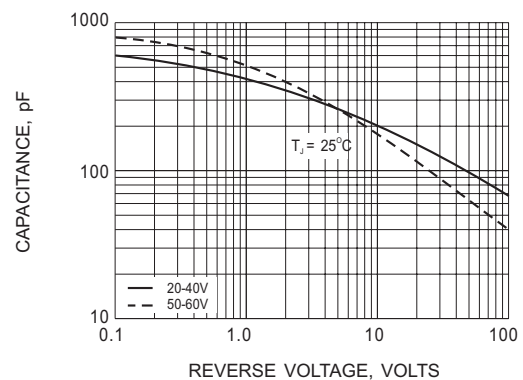
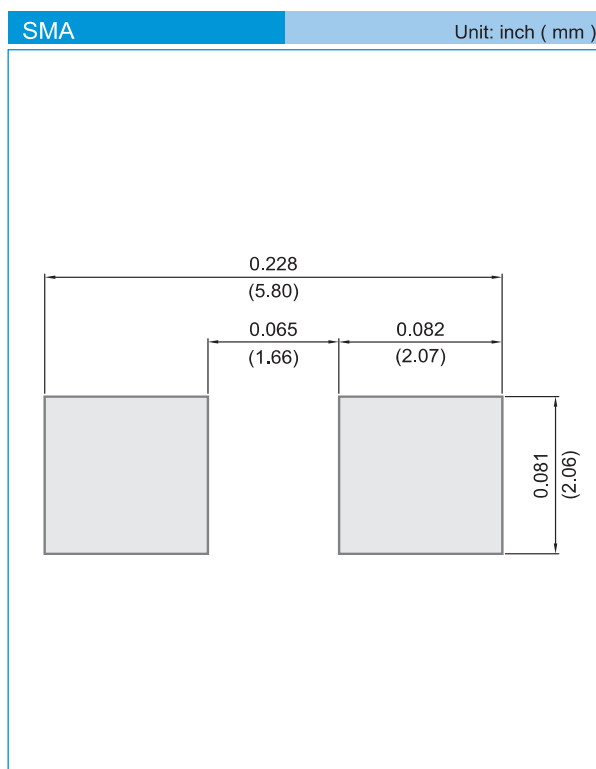


Fig.5- TYPICAL JUNCTION CAPACITANCE

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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 7.5K per 13" plastic Reel
  - T/R - 1.8Kper 7" plastic Reel

### LEGAL STATEMENT

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