



## SK23L SERIES

### LOW VF SURFACE MOUNT SCHOTTKY RECTIFIER

**VOLTAGE** 30 to 40 Volts    **CURRENT** 2.0 Amperes

SMB / DO-214AA

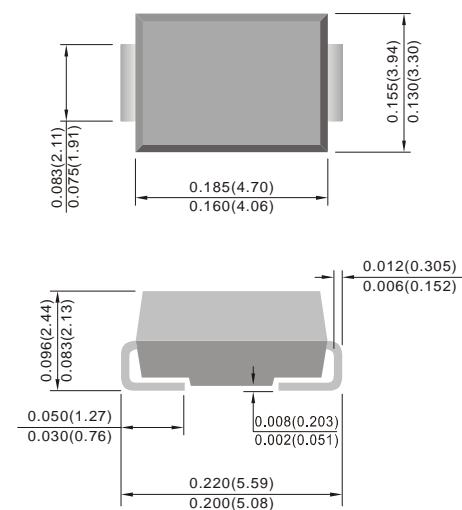
Unit : inch(mm)

#### 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-214AA 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: 0.0032 ounce, 0.092 gram



#### MAXIMUM RATINGS(T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER   | SYMBOL                               | SK23L        | SK24L | UNIT |
|---|--------------------------------------|--------------|-------|------|
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>                     | 30           | 40    | V    |
| Maximum rms voltage   | V <sub>RMS</sub>                     | 21           | 28    | V    |
| Maximum dc blocking voltage   | V <sub>DC</sub>                      | 30           | 40    | V    |
| Maximum average forward rectified current   | I <sub>F(AV)</sub>                   | 2            |       | A    |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load | I <sub>FSM</sub>                     | 50           |       | A    |
| Typical Thermal Resistance (Note 1)<br>(Note 2)                                     | R <sub>θJA</sub><br>R <sub>θJC</sub> | 130<br>10    |       | °C/W |
| Operating junction temperature range  | T <sub>J</sub>                       | -55 to + 125 |       | °C   |
| Storage temperature range   | T <sub>STG</sub>                     | -55 to + 150 |       | °C   |

#### ELECTRICAL CHARACTERISTICS(T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER                     | SYMBOL         | TEST CONDITIONS                               | TYP. | MAX.      | UNIT     |
|-------------------------------|----------------|---|------|-----------|----------|
| Instantaneous forward voltage | V <sub>F</sub> | I <sub>F</sub> =1A T <sub>A</sub> =25°C       | 0.34 | -         | V        |
|                               |                | I <sub>F</sub> =2A T <sub>A</sub> =25°C       | 0.40 | 0.43      |          |
|                               |                | I <sub>F</sub> =1A T <sub>A</sub> =125°C      | 0.24 | -         | V        |
|                               |                | I <sub>F</sub> =2A T <sub>A</sub> =125°C      | 0.33 | 0.36      |          |
| Reverse current               | I <sub>R</sub> | T <sub>A</sub> =25°C<br>T <sub>A</sub> =100°C | -    | 400<br>30 | μA<br>mA |

#### NOTES:

1. Minimum pad for each lead on board.
2. Mounted on heatsink (5cm x 5cm x 2pec) copper and areas.



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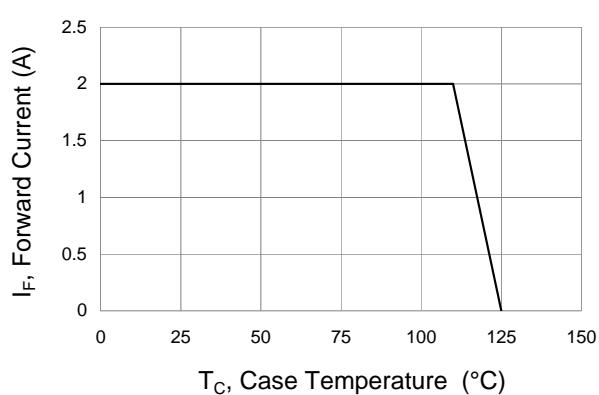


Fig.1 Forward Current Derating Curve

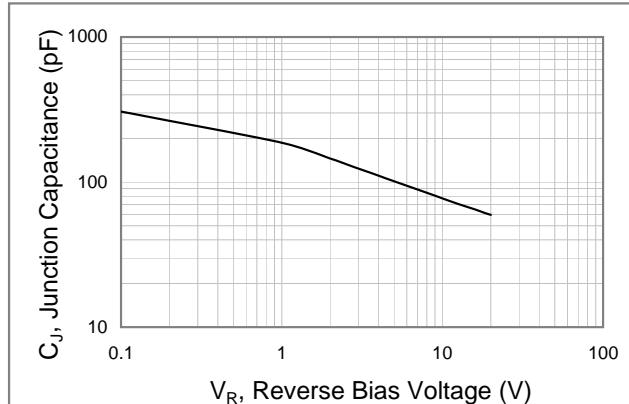


Fig.2 Typical Junction Capacitance

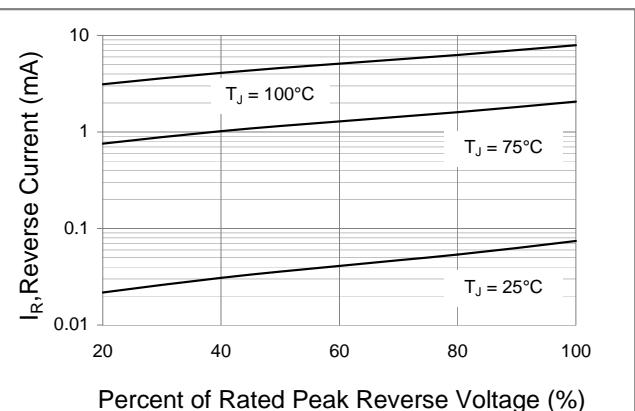


Fig.3 Typical Reverse Characteristics

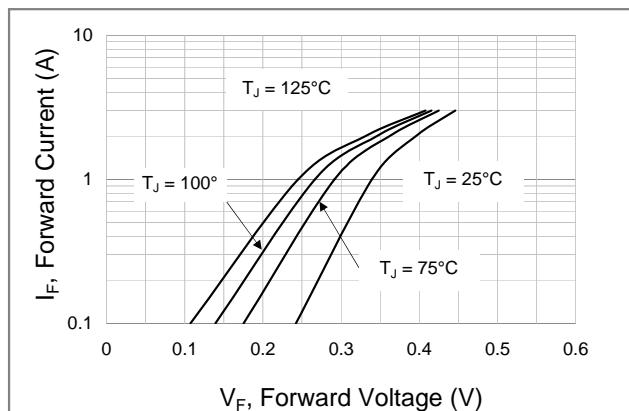
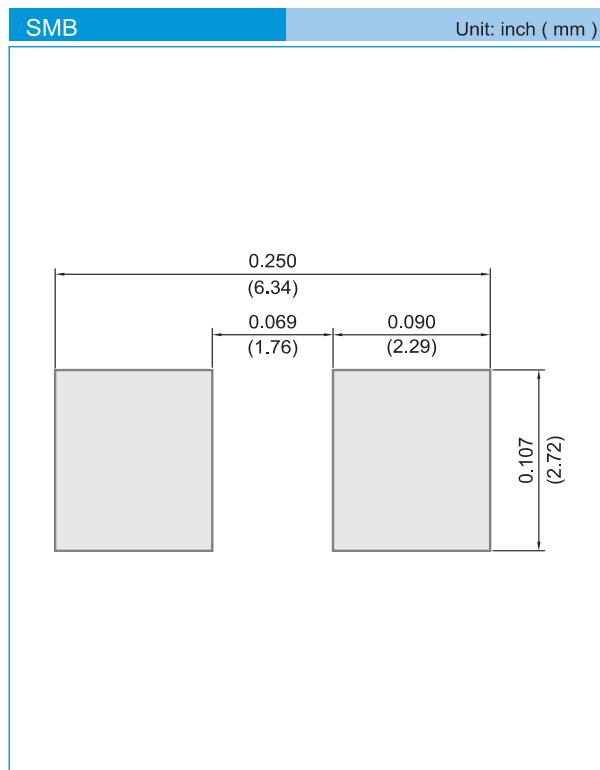


Fig.4 Typical Forward Characteristics



## SK23L SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 3K per 13" plastic Reel
  - T/R - 0.5Kper 7" plastic Reel

### LEGAL STATEMENT

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