PANJIT SEMI CONDUCTOR

# SK23L SERIES

## LOW VF SURFACE MOUNT SCHOTTKY RECTIFIER

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

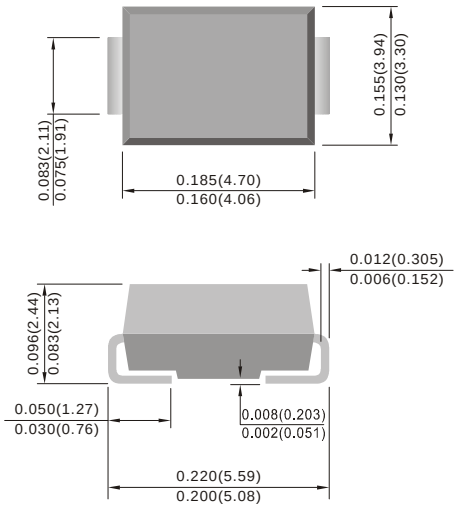
## FEATURES

- 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

**SMB / DO-214AA** Unit : inch(mm)




## MAXIMUM RATINGS($T_A$=25°C unless otherwise noted)

| PARAMETER | SYMBOL | SK23L | SK24L | UNIT |
|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 30 | 40 | V |
| Maximum rms voltage | $V_{RMS}$ | 21 | 28 | V |
| Maximum dc blocking voltage | $V_{DC}$ | 30 | 40 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 2 | | A |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$ | 50 | | A |
| Typical Thermal Resistance (Note 1)<br>(Note 2) | $R_{\Theta JA}$<br>$R_{\Theta JC}$ | 130<br>10 | | °C/W |
| Operating junction temperature range | $T_J$ | -55 to + 125 | | °C |
| Storage temperature range | $T_{STG}$ | -55 to + 150 | | °C |

## ELECTRICAL CHARACTERISTICS($T_A$=25°C unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITIONS | | TYP. | MAX. | UNIT |
|---|---|---|---|---|---|---|
| Instantaneous forward voltage | $V_F$ | $I_F$=1A<br>$I_F$=2A | $T_A$=25°C | 0.34<br>0.40 | -<br>0.43 | V |
| | | $I_F$=1A<br>$I_F$=2A | $T_A$=125°C | 0.24<br>0.33 | -<br>0.36 | V |
| Reverse current | $I_R$ | | $T_A$=25°C<br>$T_A$=100°C | -<br>- | 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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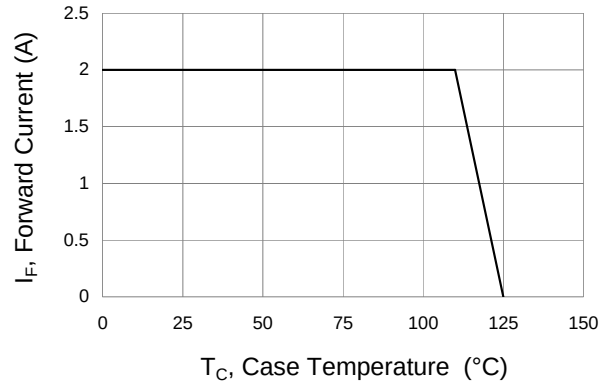


**Fig.1 Forward Current Derating Curve**

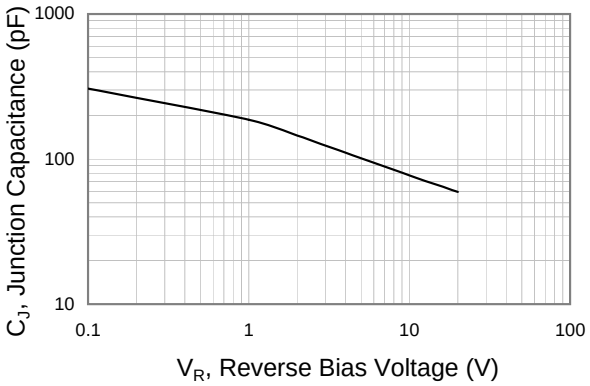


**Fig.2 Typical Junction Capacitance**

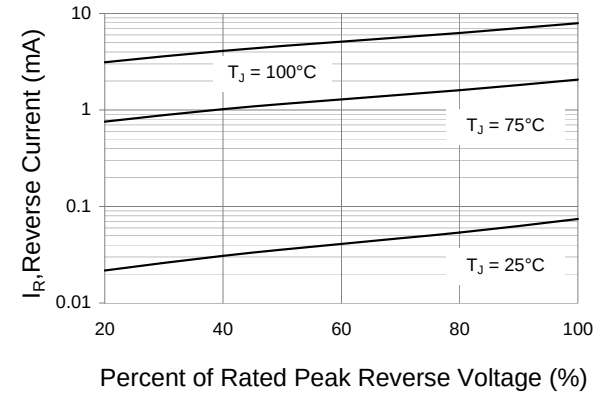


**Fig.3 Typical Reverse Characteristics**

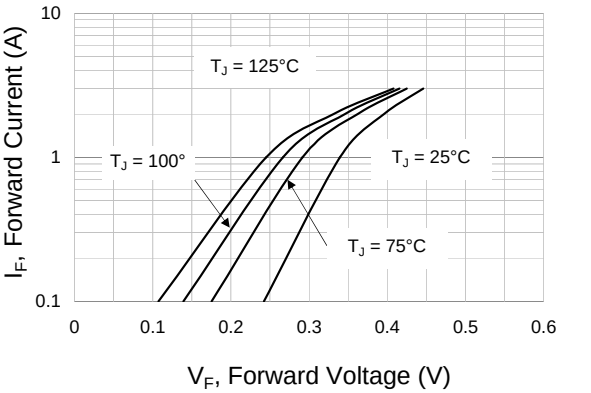


**Fig.4 Typical Forward Characteristics**

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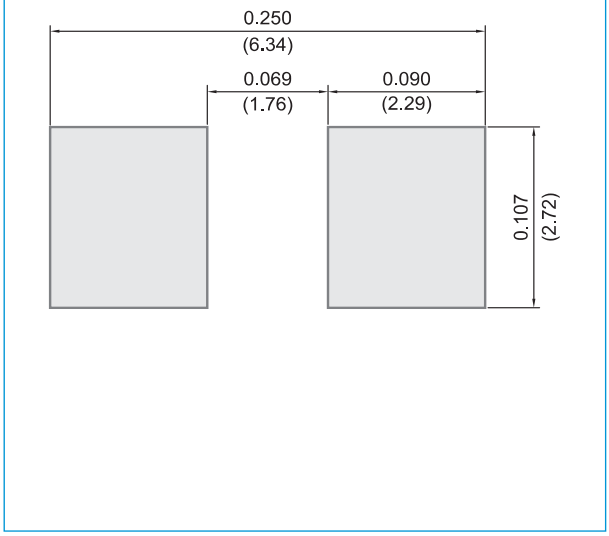
## MOUNTING PAD LAYOUT

SMB Unit: inch ( mm )




## ORDER INFORMATION

- Packing information

  T/R - 3K per 13" plastic Reel

  T/R - 0.5Kper 7" plastic Reel

## LEGAL STATEMENT

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