

SR24ALF

LOW VF SCHOTTKY BARRIER RECTIFIER

VOLTAGE 45 Volts **CURRENT** 2 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
- Lead free in comply with EU RoHS 2011/65/EU directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

Case : SMAF, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

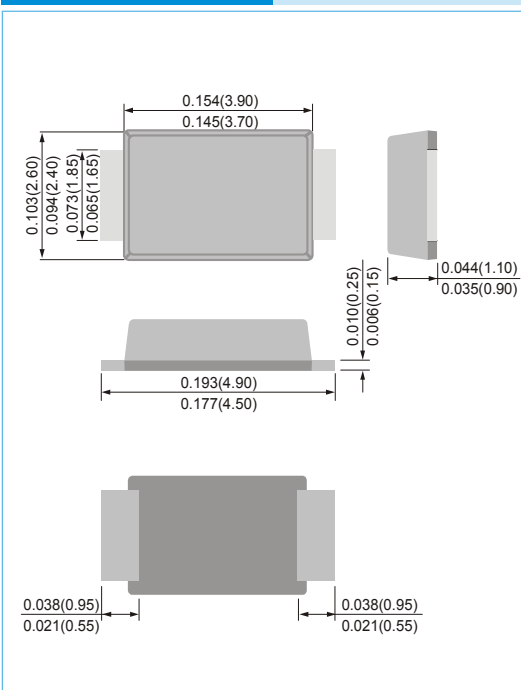
Weight: 0.0011 ounces, 0.0328 grams

Marking: SR24ALF



SMAF

Unit : inch(mm)



ABSOLUTE MAXIMUM RATINGS (TA=25°C unless otherwise noted)

| PARAMETER | SYMBOL | VALUE | UNIT |
|--|-----------------|--------------|------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 45 | V |
| Maximum RMS Voltage | V_{RMS} | 31.5 | V |
| Maximum DC Blocking Voltage | V_R | 45 | V |
| Average Rectified Output Current | $I_{F(AV)}$ | 2 | A |
| Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 80 | A |
| Typical Thermal Resistance, Junction to Lead (Note 1) | $R_{\theta JL}$ | 20 | °C/W |
| Operating Junction Temperature and Storage Temperature Range | T_J, T_{STG} | -55 to + 150 | °C |

NOTES:

- 1.Mounted on 48cm² FR-4 PCB .

SR24ALF

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

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|-------------------------------|-----------------|--|------|------|------|------|
| Breakdown voltage | V _{BR} | I _R =1mA T _A =25°C | 45 | - | - | V |
| Instantaneous forward voltage | V _F | I _F =1A T _A =25°C | - | 0.40 | - | V |
| | | I _F =1.5A T _A =25°C | - | 0.42 | - | V |
| | | I _F =2A T _A =25°C | - | 0.45 | 0.47 | V |
| | | I _F =1A T _A =125°C | - | 0.28 | - | V |
| Reverse current | I _R | I _F =1.5A T _A =125°C | - | 0.32 | - | V |
| | | I _F =2A T _A =125°C | - | 0.36 | - | V |
| | | V _R =36V T _A =25°C | - | 9.2 | - | μA |
| Reverse current | I _R | V _R =45V T _A =25°C | - | - | 100 | μA |
| | | V _R =45V T _A =125°C | - | 12 | - | mA |

RATING AND CHARACTERISTIC CURVES

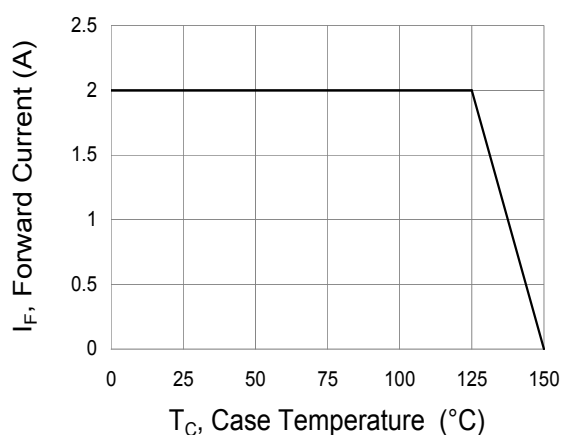


Fig.1 Forward Current Derating Curve

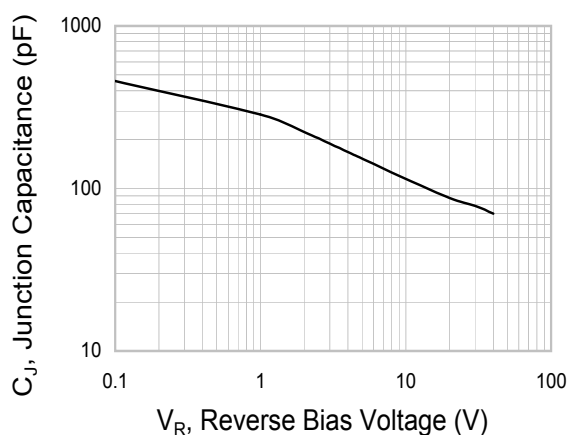


Fig.2 Typical Junction Capacitance

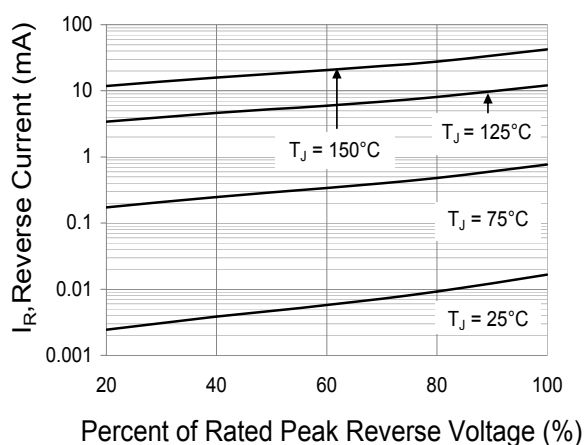


Fig.3 Typical Reverse Characteristics

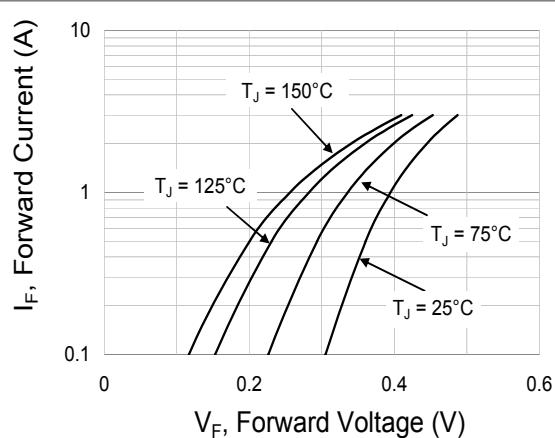
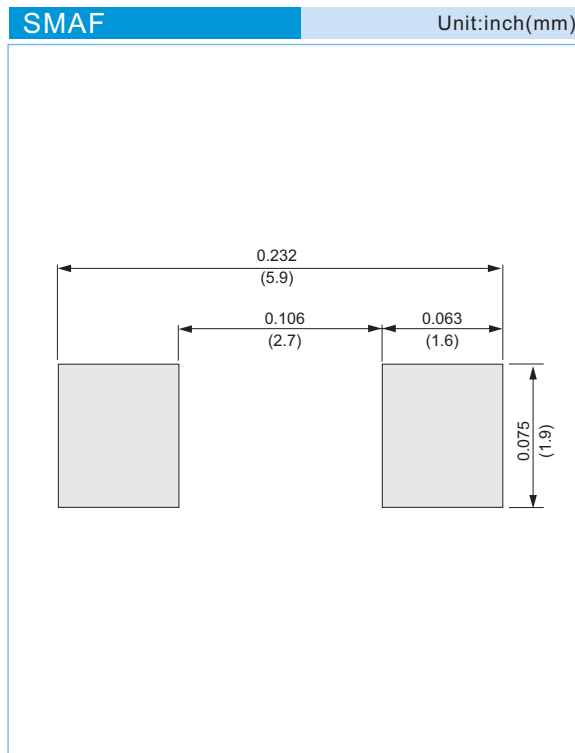


Fig.4 Typical Forward Characteristics

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 10K per 13" plastic Reel

SR24ALF

Part No_packing code_Version

SR24ALF_R1_00001

SR24ALF_R2_00001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



SR24ALF

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