

## BAV301~BAV303

### HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 120 to 250 Volts **POWER** 300 mWatts

**MICRO-MELF** Unit : inch (mm)

#### FEATURES

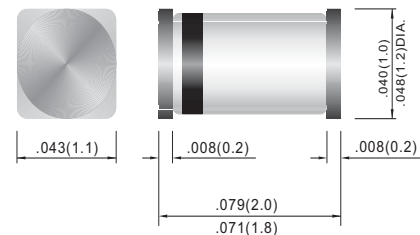
- Fast switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- Silicon Epitaxial Planar Construction.
- Lead free in comply with EU RoHS 2011/65/EU directives

#### MECHANICAL DATA

- Case: Micro Melf, Glass
- Terminals: Solderable per MIL-STD-202E, Method 208
- Polarity: Cathode Band
- Marking: Cathode Band Only
- Weight: 0.01 grams
- Packing information

T/R - 3K per 7" plastic reel

T/R - 10K per 13" plastic reel



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>J</sub> = 25°C unless otherwise noted)

| PARAMETER  | SYMBOL           | BAV301      | BAV302 | BAV303 | UNITS  |
|--|------------------|-------------|--------|--------|--------|
| Reverse Voltage  | V <sub>R</sub>   | 100         | 150    | 200    | V      |
| Peak Reverse Voltage   | V <sub>RRM</sub> | 120         | 200    | 250    | V      |
| Rectified Current (Average), Half Wave Rectification with Resistive Load and f ≥ 50 Hz | I <sub>O</sub>   | 200         |        |        | mA     |
| Peak Forward Surge Current, t=1000ms   | I <sub>FSM</sub> | 1.0         |        |        | A      |
| Power Dissipation Derate Above at 25°C   | P <sub>D</sub>   | 300         |        |        | mW     |
| Maximum Forward Voltage, I <sub>F</sub> = 100mA  | V <sub>F</sub>   | 1.0         |        |        | V      |
| Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> = 25°C          | I <sub>R</sub>   | 0.1         |        |        | μA     |
| Typical Junction Capacitance( Note 1)  | C <sub>J</sub>   | 3.0         |        |        | pF     |
| Maximum Reverse Recovery (Note 2)  | t <sub>rr</sub>  | 75          |        |        | ns     |
| Typical Thermal Resistance   | R <sub>θJA</sub> | 350         |        |        | °C / W |
| Operation Junction Storage Temperature Range   | T <sub>STG</sub> | -65 to +175 |        |        | °C     |

#### NOTE:

1. C<sub>J</sub> at V<sub>R</sub>=0, f=1MHZ
2. From I<sub>F</sub>=10mA to I<sub>R</sub>=-1mA, V<sub>R</sub>=6Volts, R<sub>L</sub>=100Ω

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### RATING AND CHARACTERISTIC CURVES

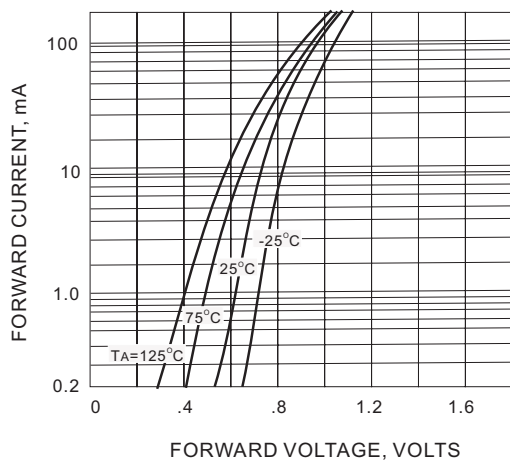


Fig.1 FORWARD CHARACTERISTICS

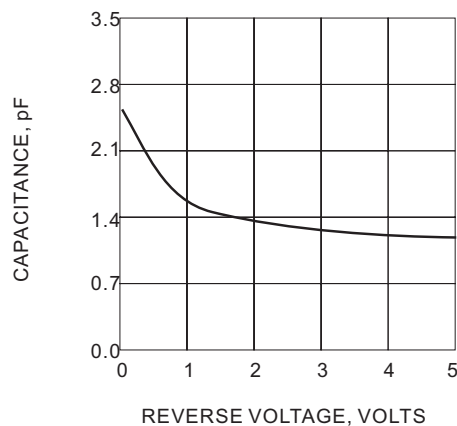


Fig.2 TYPICAL CAPACITANCE vs REVERSE VOLTAGE

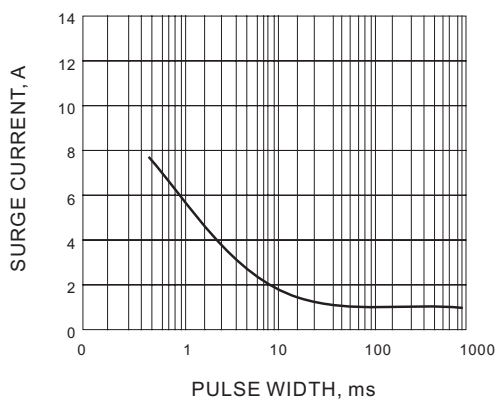


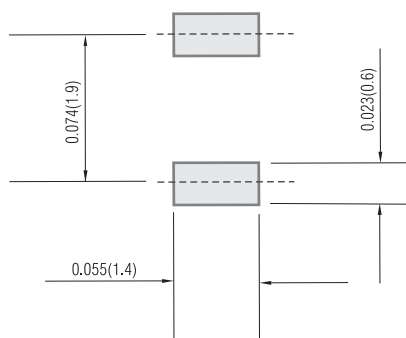
Fig.3 SURGE CURRENT CHARACTERISTIC

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## MOUNTING PAD LAYOUT

MICRO-MELF

Unit: inch ( mm )



## ORDER INFORMATION

- Packing information

T/R - 10K per 13" plastic Reel

T/R - 3K per 7" plastic Reel

## BAV301~BAV303

### Part No\_packing code\_Version

BAV301\_R1\_00001

BAV301\_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 <b>XX</b>               |                      |                                  |                      | Version Code <b>XXXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|----------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS                 | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |
| Tape and Ammunition Box (T/B)        | <b>A</b>             | N/A                              | <b>0</b>             | HF                         | <b>0</b>             | serial number                         |
| Tape and Reel (T/R)                  | <b>R</b>             | 7"                               | <b>1</b>             | RoHS                       | <b>1</b>             | serial number                         |
| Bulk Packing (B/P)                   | <b>B</b>             | 13"                              | <b>2</b>             |                            |                      |                                       |
| Tube Packing (T/P)                   | <b>T</b>             | 26mm                             | <b>X</b>             |                            |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | <b>S</b>             | 52mm                             | <b>Y</b>             |                            |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | <b>L</b>             | PANASERT T/B CATHODE UP (PBCU)   | <b>U</b>             |                            |                      |                                       |
| FORMING                              | <b>F</b>             | PANASERT T/B CATHODE DOWN (PBCD) | <b>D</b>             |                            |                      |                                       |

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