

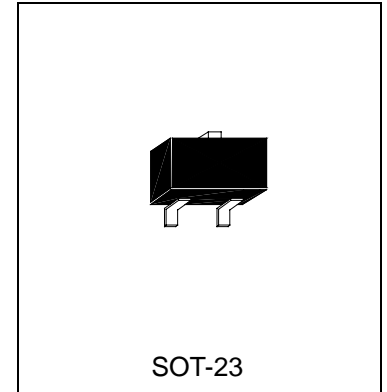


HBAV99

HIGH-SPEED SWITCHING DIODE

Description

The HBAV99 consists of two diodes in a plastic surface mount package. The diodes are connected in series and the unit is designed for high-speed switching application in hybrid thick and thin-film circuits.



Features

- Small SMD Package (SOT-23)
- Ultra-high Speed
- Low Forward Voltage
- Fast Reverse Recovery Time

Absolute Maximum Ratings

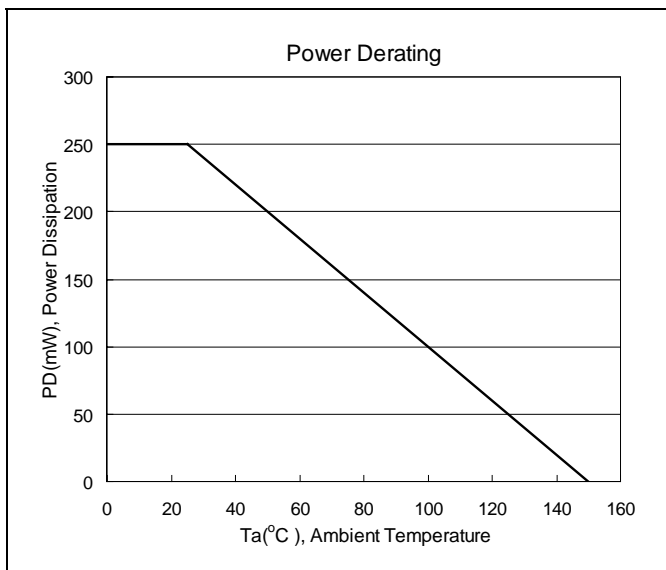
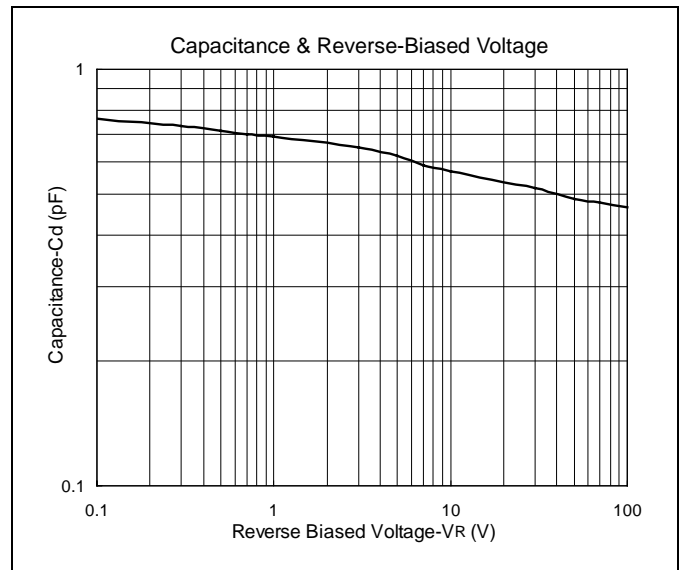
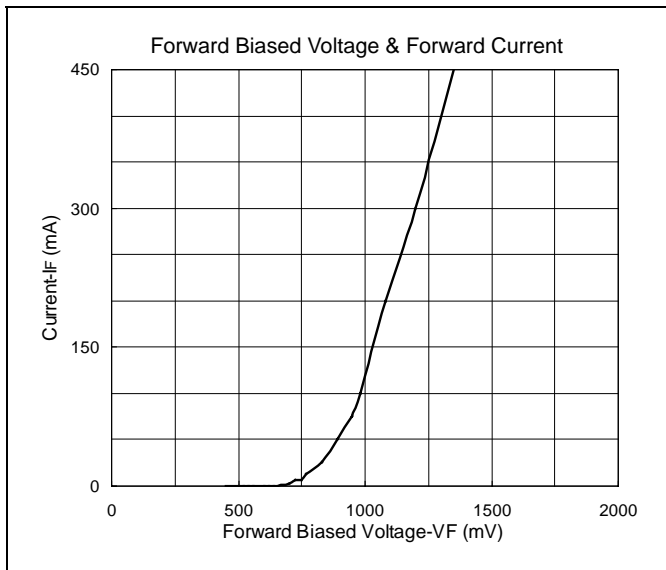
- Maximum Temperatures
 Storage Temperature -65 ~ +150 °C
 Junction Temperature +150 °C
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 250 mW
- Maximum Voltages and Currents (Ta=25°C)
 Reverse Voltage 70 V
 Repetitive Reverse Voltage 70 V
 Forward Current 150 mA
 Repetitive Forward Current 500 mA
 Forward Surge Current (1ms)..... 1000 mA

Characteristics (Ta=25°C)

| Characteristic | Symbol | Condition | Min | Max | Unit |
|---------------------------|--------|---|-----|------|------|
| Reverse Breakdown Voltage | V(BR) | IR=100uA | 70 | - | V |
| Forward Voltage | VF(1) | IF=1mA | - | 715 | mV |
| | VF(2) | IF=10mA | - | 855 | mV |
| | VF(3) | IF=50mA | - | 1000 | mV |
| | VF(4) | IF=150mA | - | 1250 | mV |
| Reverse Current | IR | VR=70 | - | 2.5 | uA |
| Total Capacitance | CT | VR=0, f=1MHz | - | 1.5 | pF |
| Reverse Recovery Time | Trr | IF=IR=10mA, RL=100Ω measured at IR=1mA | - | 6 | nS |



Characteristics Curve





SOT-23 Dimension

Diagram:

Marking:

3-Lead SOT-23 Plastic Surface Mounted Package
 HSMC Package Code: N

Style: Pin 1.Anode 2.Cathode
 3.Common Connection

*: Typical

| DIM | Inches | | Millimeters | | DIM | Inches | | Millimeters | |
|-----|--------|--------|-------------|------|-----|--------|--------|-------------|-------|
| | Min. | Max. | Min. | Max. | | Min. | Max. | Min. | Max. |
| A | 0.1102 | 0.1204 | 2.80 | 3.04 | J | 0.0034 | 0.0070 | 0.085 | 0.177 |
| B | 0.0472 | 0.0630 | 1.20 | 1.60 | K | 0.0128 | 0.0266 | 0.32 | 0.67 |
| C | 0.0335 | 0.0512 | 0.89 | 1.30 | L | 0.0335 | 0.0453 | 0.85 | 1.15 |
| D | 0.0118 | 0.0197 | 0.30 | 0.50 | S | 0.0830 | 0.1083 | 2.10 | 2.75 |
| G | 0.0669 | 0.0910 | 1.70 | 2.30 | V | 0.0098 | 0.0256 | 0.25 | 0.65 |
| H | 0.0005 | 0.0040 | 0.013 | 0.10 | | | | | |

- Notes: 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.
 2.Controlling dimension: millimeters.
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

Material:

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
 Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
 Tel: 886-3-5983621~5 Fax: 886-3-5982931