

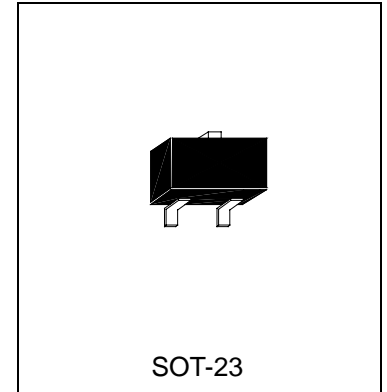


# HBAV99

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

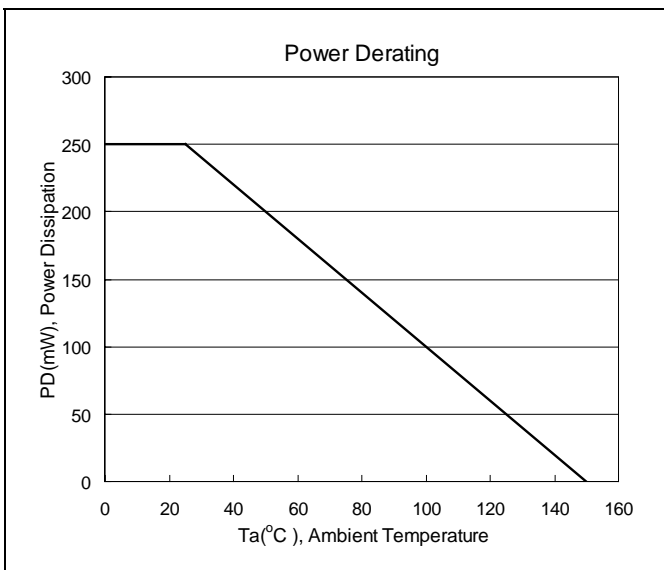
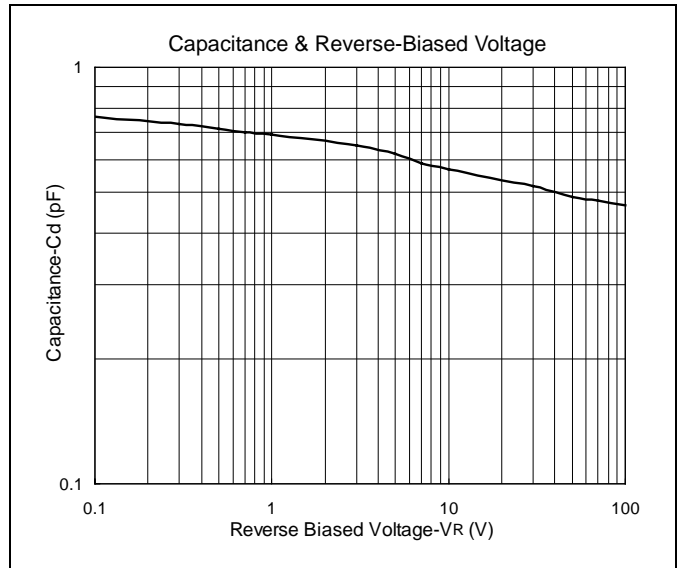
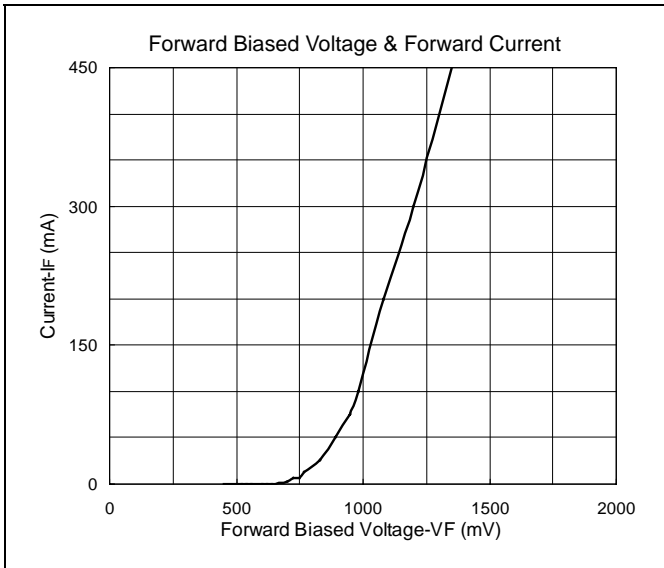
- Maximum Temperatures  
 Storage Temperature ..... -65 ~ +150 °C  
 Junction Temperature ..... +150 °C
- Maximum Power Dissipation  
 Total Power Dissipation (Ta=25°C) ..... 250 mW
- Maximum Voltages and Currents (Ta=25°C)  
 Reverse Voltage ..... 70 V  
 Repetitive Reverse Voltage ..... 70 V  
 Forward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