

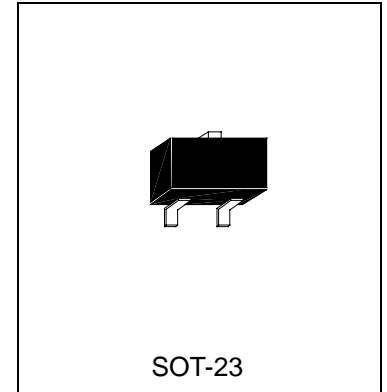


HBAV99

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

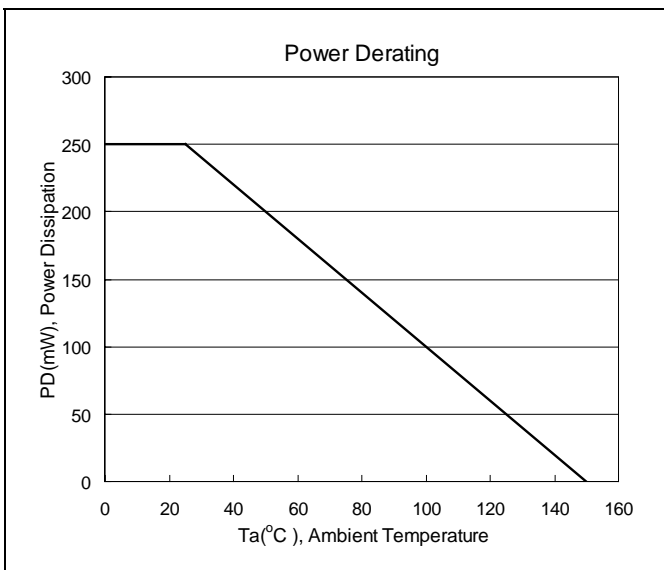
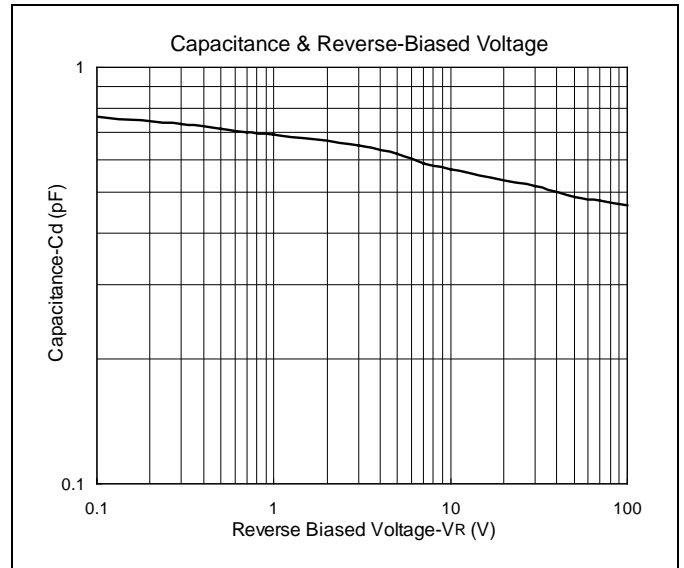
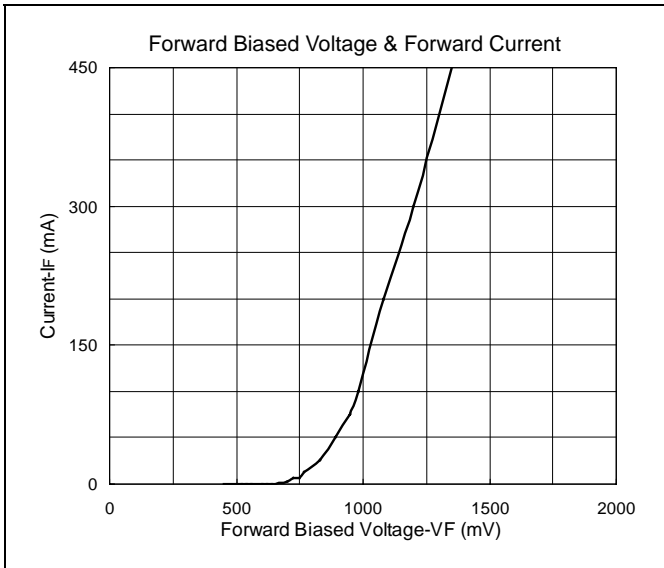
- Maximum Temperatures
Storage Temperature -65 ~ +150 °C
Junction Temperature +150 °C
- Maximum Power Dissipation
Total Power Dissipation (Ta=25°C) 250 mW
- Maximum Voltages and Currents (Ta=25°C)
Reverse Voltage 70 V
Repetitive Reverse Voltage 70 V
Forward Current 150 mA
Repetitive Forward Current 500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