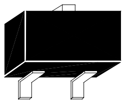
HBAS16

HIGH-SPEED SWITCHING DIODE



SOT-23

Description

- The HBAS16 is designed for high-speed switching application in hybrid thick and thin-film circuits.
- The devices is manufactured by the silicon epitaxial planar process and packed in a plastic surface mount package.

Features

- Small SMD Package (SOT-23)
- Low Forward Voltage
- Fast Reverse Recovery Time
- Small Total Capacitance

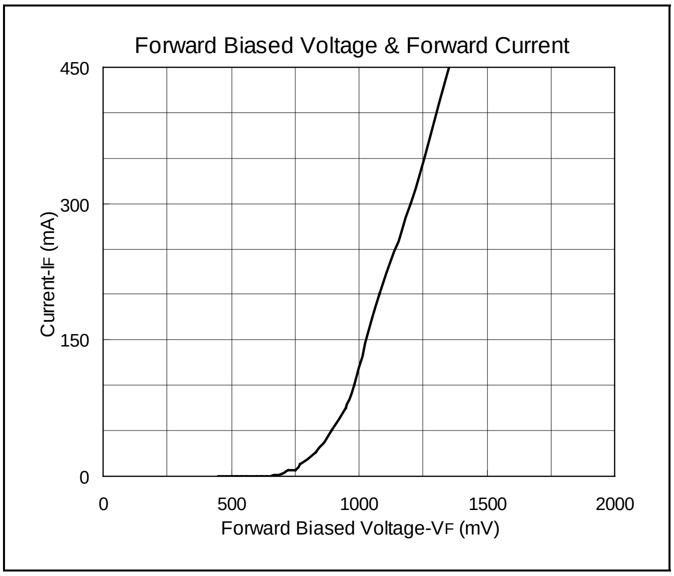
Absolute Maximum Ratings

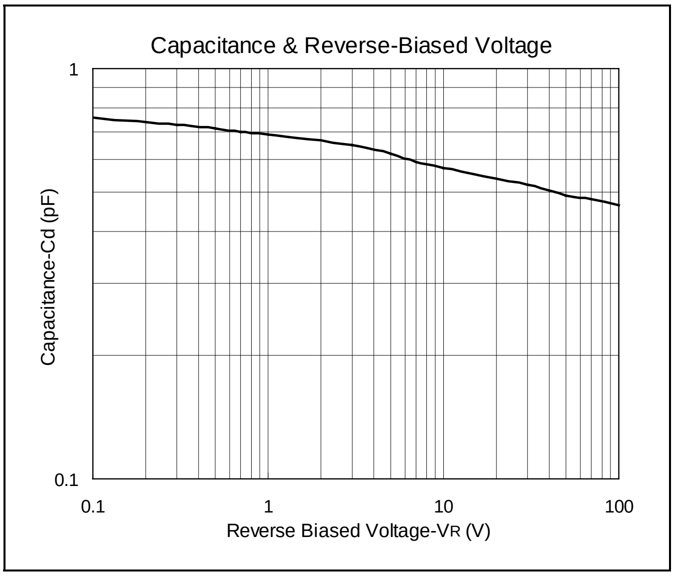
- Maximum Temperatures
  Storage Temperature .... -65~+150 °C
  Junction Temperature .... +150 °C
- Maximum Power Dissipation
  Total Power Dissipation (Ta=25°C) .... 200 mW
- Maximum Voltages and Currents (Ta=25°C)
  Reverse Voltage .... 75 V
  Repetitive Reverse Voltage .... 85 V
  Forward Current .... 250 mA
  Repetitive Forward Current .... 500 mA
  Forward Surge Current (1ms).. 1 A

Characteristics (Ta=25°C)

Characteristic	Symbol	Condition	Min	Max.	Unit
Reverse Breakdown Voltage	V(BR)	IR=100uA	75	-	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=75V	-	1	uA
Total Capacitance	CT	VR=0, f=1MHZ	-	2	pF
Reverse Recovery Time	Trr	IF=IR=10mA, RL=100Ω, measured at IR=1mA	-	6	nS

Characteristics Curve





SOT-23 Dimension

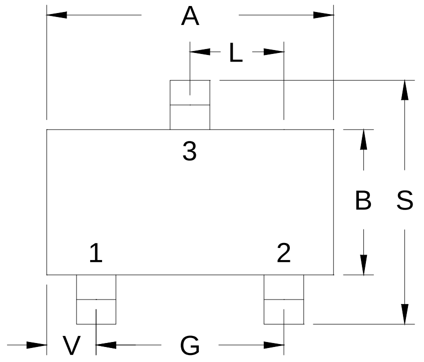
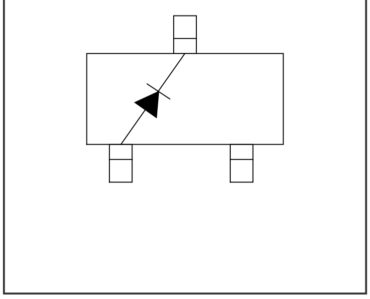
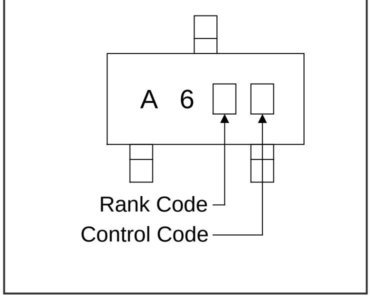


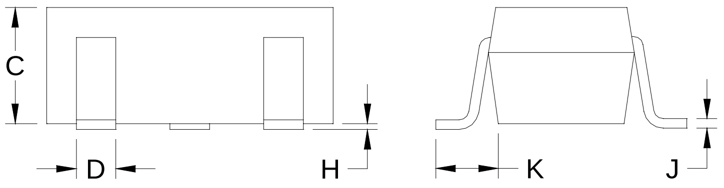
Diagram:



Marking:



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



Style: Pin 1.Anode 2.NC 3.Cathode

*: 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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