



# HBAW56

HIGH-CONDUCTANCE ULTRA DIODE

## Description

The HBAW56 consists of two high-speed switching diodes with common anodes, fabricated in planar technology, and encapsulated in the small plastic SMD SOT23 package.

## Features

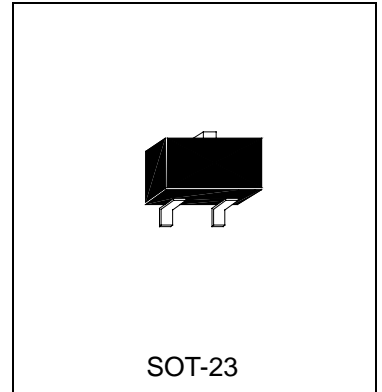
- Small SMD Package (SOT-23)
- Ultra-high Speed
- Low Forward Voltage
- Fast Reverse Recovery Time

## 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 ..... 85 V  
Repetitive Reverse Voltage ..... 75 V  
Forward Current ..... 215 mA  
Repetitive Forward Current ..... 125 mA  
Forward Surge Current (1ms)..... 450 mA

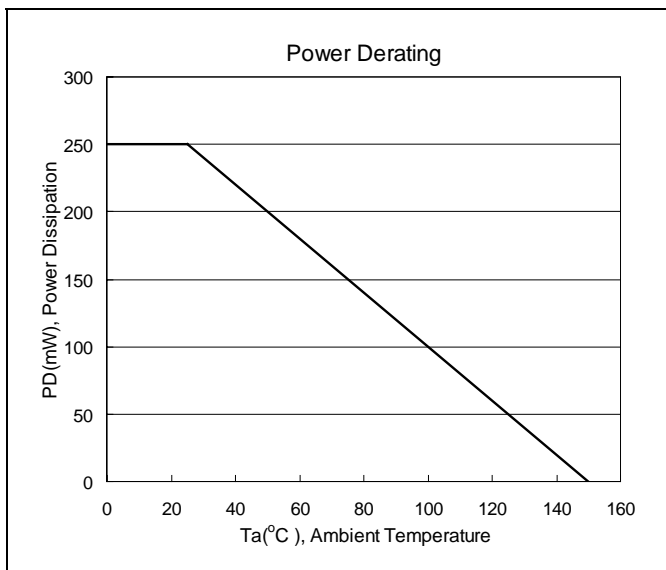
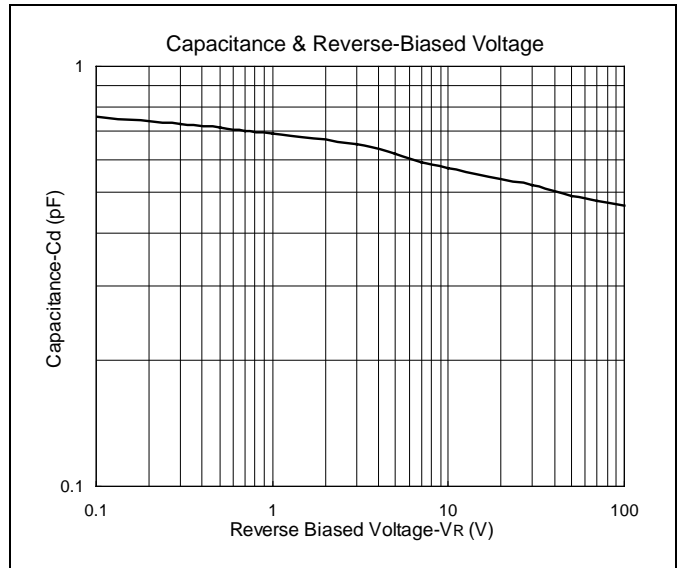
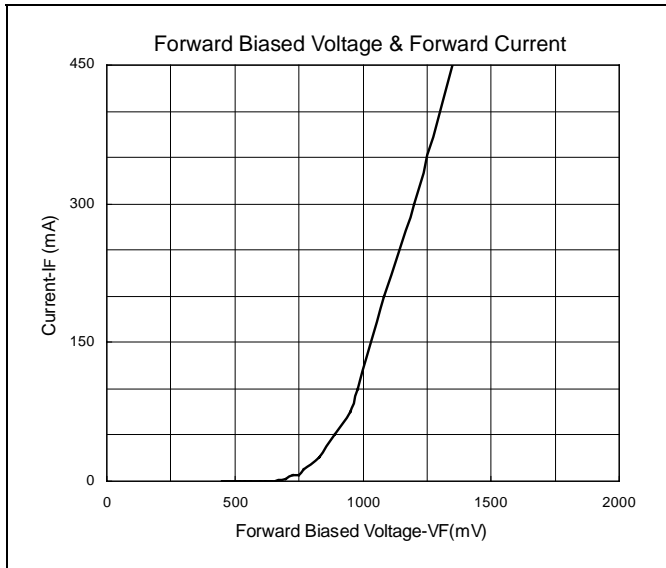
## Characteristics (Ta=25°C)

Characteristic	Symbol	Condition	Min	Max	Unit
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	-	4	nS





### Characteristics Curve





### SOT-23 Dimension

Diagram:

Marking:

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

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

\*: 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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