



HBAW56

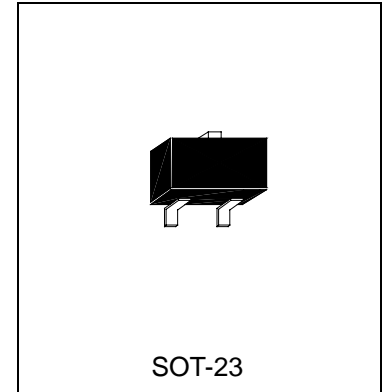
HIGH-CONDUCTANCE ULTRA DIODE

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

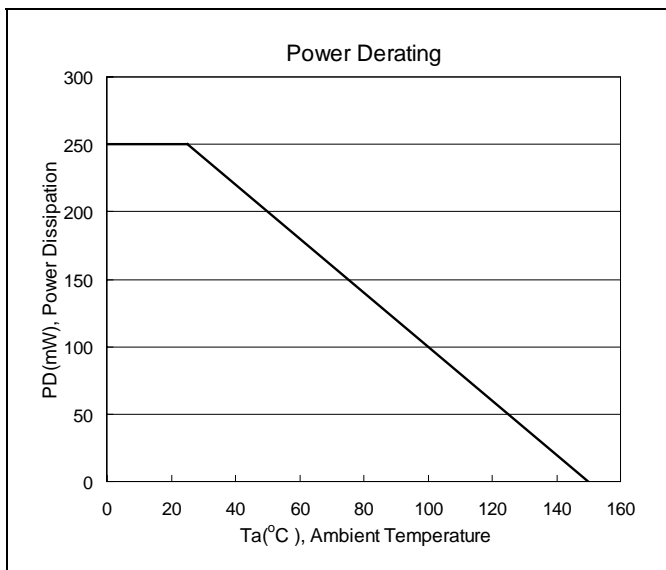
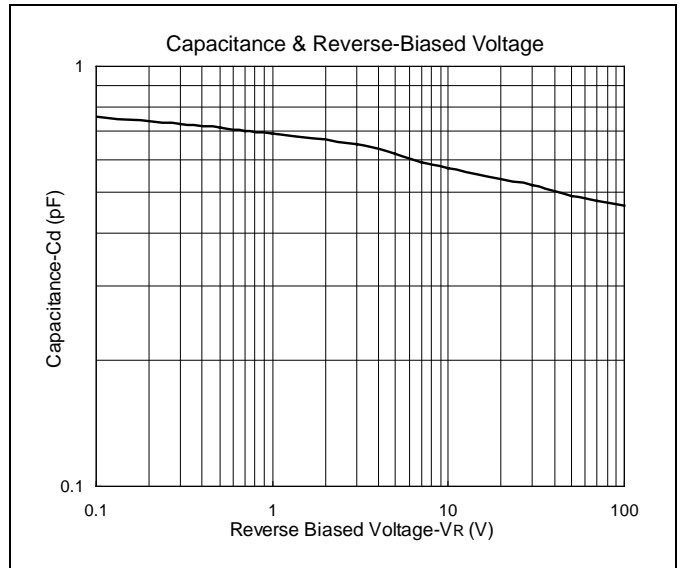
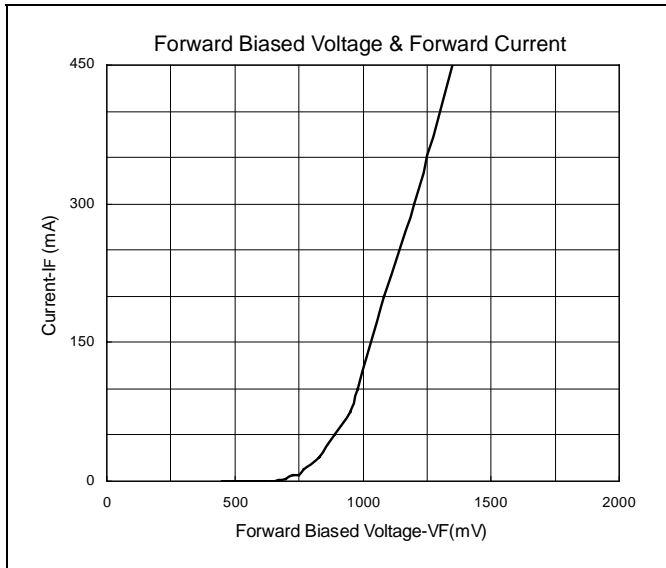
- Maximum Temperatures
 Storage Temperature -65 ~ +150 °C
 Junction Temperature +150 °C
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 250 mW
- Maximum Voltages and Currents (Ta=25°C)
 Reverse Voltage 85 V
 Repetitive Reverse Voltage 75 V
 Forward Current 215 mA
 Repetitive Forward Current 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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