

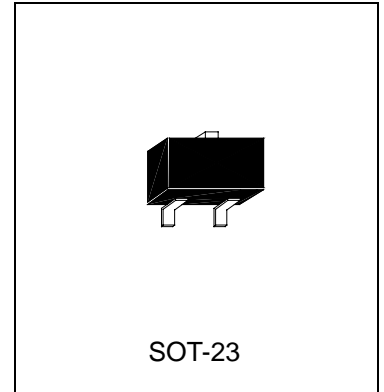


# HMBD914

HIGH-SPEED SWITCHING DIODE

## Description

The HMBD914 is designed for high-speed switching application in hybrid thick-and thin-film circuits. The device is manufactured by the silicon epitaxial planar process and packed in plastic surface mount package.



## Features

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

## Absolute Maximum Ratings

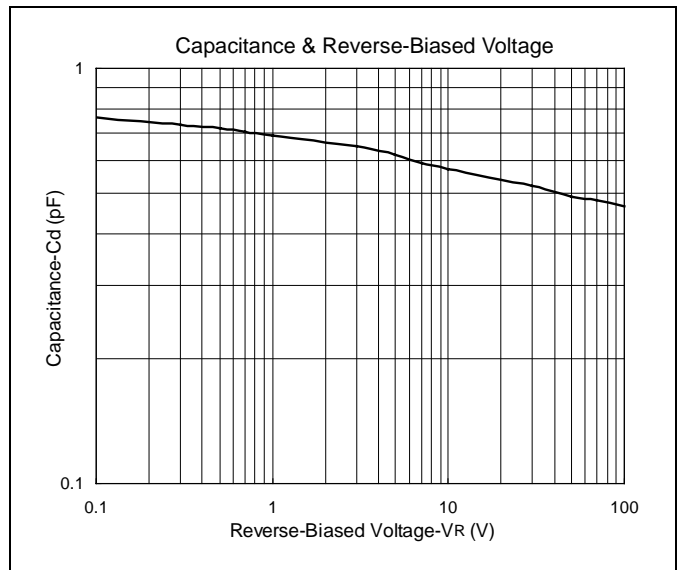
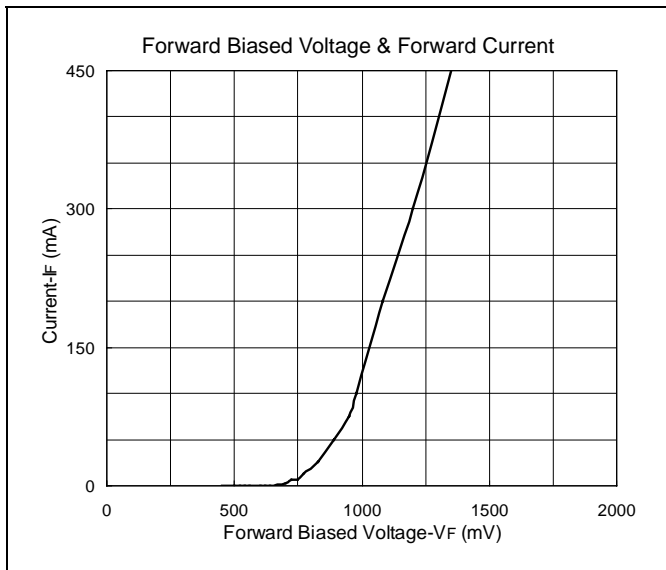
- Maximum Temperatures
  - Storage Temperature ..... -65 ~ +150 °C
  - Junction Temperature ..... +150 °C
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C)..... 250 mW
- Maximum Voltages and Currents (Ta=25°C)
  - Repetitive Peak Reverse Voltage..... 85 V
  - VR Coinuous Reverse Voltage..... 70 V
  - IF Continuous Forward Current..... 200 mA
  - IFSM Peak Forward Surge Current..... 500 mA
  - IFSM Non-Repetitive Peak Forward Current t=1uS ..... 4 A
  - IFSM Non-Repetitive Peak Forward Current t=1mS ..... 1 A
  - IFSM Non-Repetitive Peak Forward Current t=1S ..... 0.5 A

## Characteristics (Ta=25°C)

Characteristic	Symbol	Condition	Min	Max	Unit
Forward Voltage	VF	IF=10mA	-	1	V
Reverse Breakdown Voltage	VR	IR=100uA	100		V
Reverse Current	IR(1)	VR=25V	-	25	nA
	IR(2)	VR=75V	-	5	uA
Diode Capacitance	Cd	VR=0, F=1MHz	-	1.5	pF
Reverse Recovery Time	Trr	IF=IR=10mA, RL=100Ω Measured at IR=1mA	-	4	ns

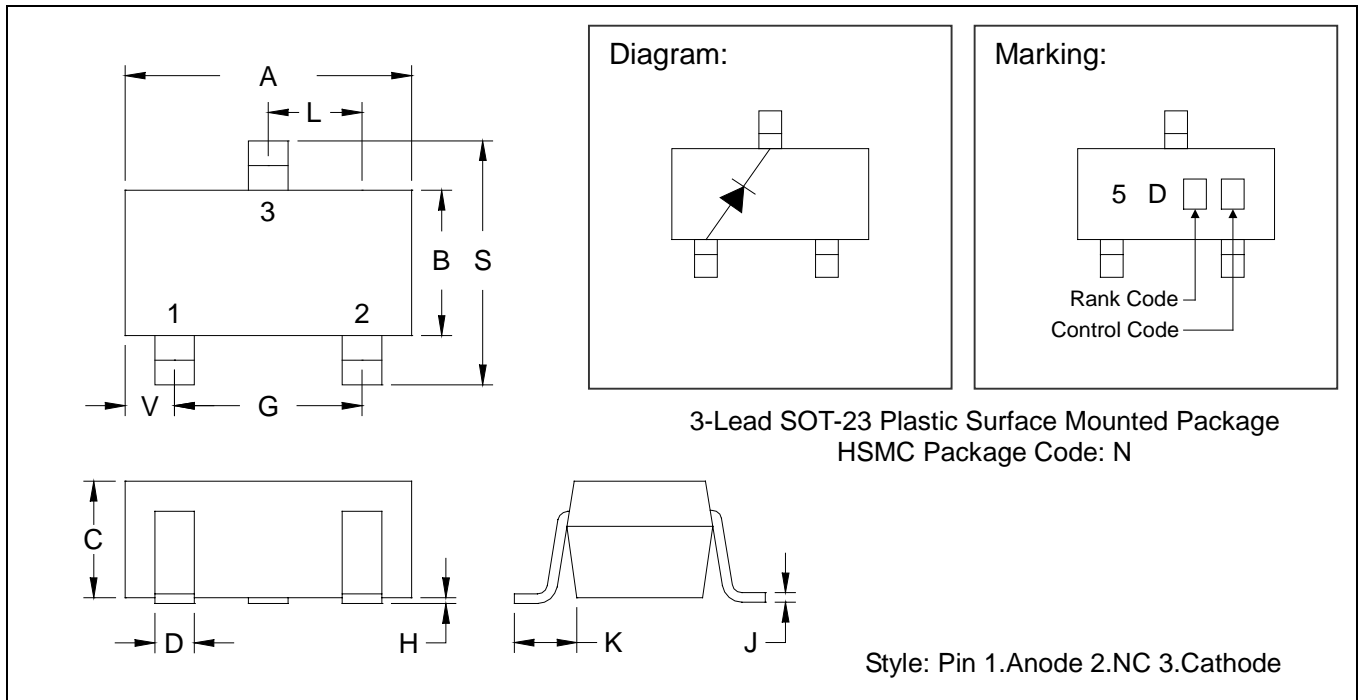


## Characteristics Curve





### SOT-23 Dimension



\*: 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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