



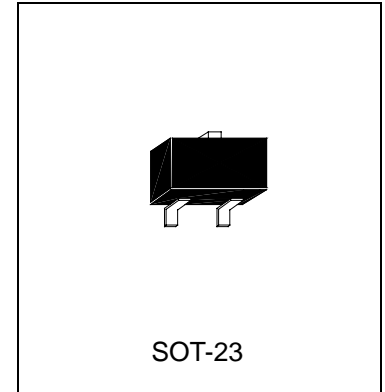
# HMBD2004\C\S

## Description

The HMBD2004\C\S are general purpose diodes fabricated in planar technology, and encapsulated in small plastic SMD SOT-23 package.

## Features

- Small plastic SMD package
- Switching speed: max. 50 nS
- General application:
  - Continuous reverse voltage: Max. 240 V
  - Repetitive peak reverse voltage: Max. 300 V
  - Repetitive peak forward current: Max. 625 mA



## Absolute Maximum Ratings (Ta=25°C)

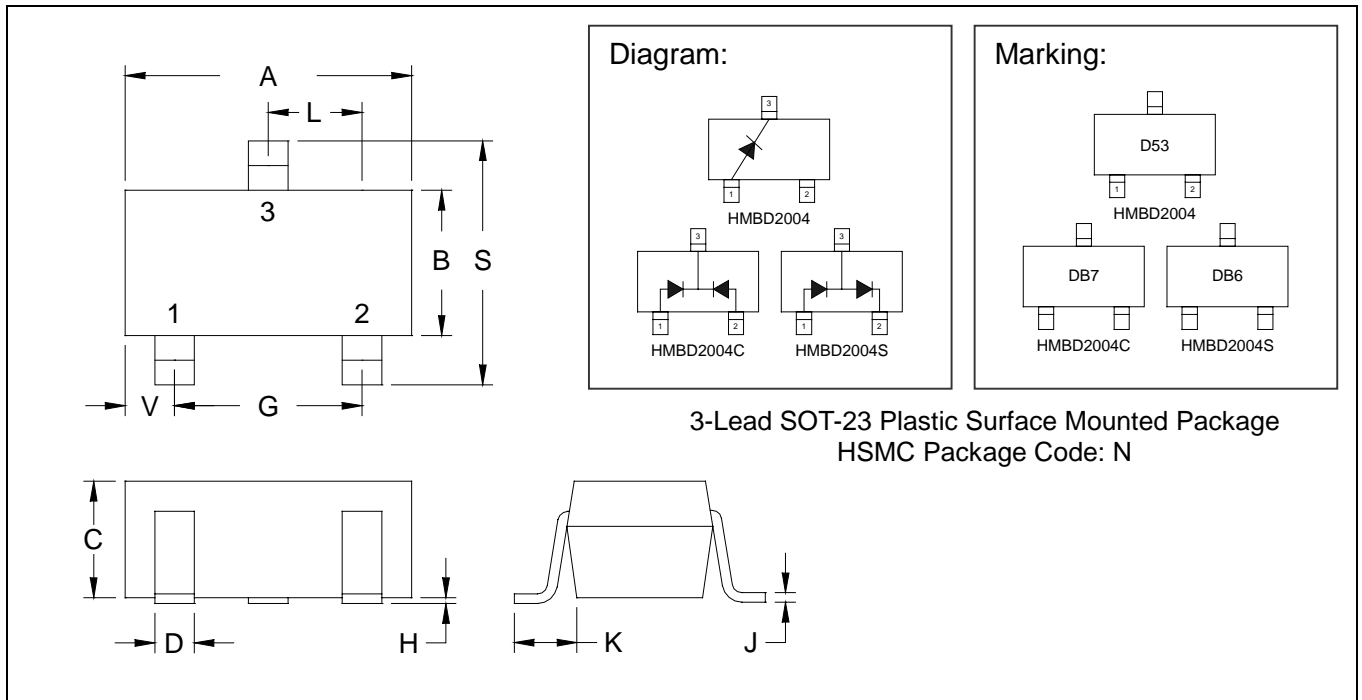
Characteristic	Symbol	Value	Unit
HMBD2004 Repetitive Peak Reverse Voltage	VRRM	300	V
HMBD2004C Repetitive Peak Reverse Voltage		300	
HMBD2004S Repetitive Peak Reverse Voltage		300	
HMBD2004 Continuous reverse voltage	VR	240	V
HMBD2004C Continuous reverse voltage		240	
HMBD2004S Continuous reverse voltage		240	
Forward Continuous Current at Ta=25°C	IF	225	mA
Repetitive Peak Forward Current at Ta=25°C	IFRM	625	mA
Surge Forward Current at t =1mS, Ta=25°C	IFSM	1	A
Power Dissipation	PD	250 Max	mW
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	-65~+150	°C

## Characteristics (Ta=25°C)

Characteristic	Symbol	Condition	Min	Max	Unit
Forward Voltage	VF	IF=100mA	-	1	V
HMBD2004 Reverse Current	IR	VR=240V	-	100	nA
HMBD2004C Reverse Current		VR=240V	-	100	
HMBD2004S Reverse Current		VR=240V	-	100	
Total Capacitance	CT	VR=0V, f=1MHz	5	-	pF
Reverse Recovery Time	Trr	IF=30mA to IR=30mA RL=100Ω measured at IR=3mA	50	-	nS
BV <sub>R</sub>	BV <sub>R</sub>	IR=100uA	250	-	V



### 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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