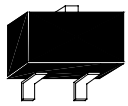
HMBD2003\C\S



SOT-23

Description

The HMBD2003\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. 200 V
  Repetitive peak reverse voltage: Max. 250 V
  Repetitive peak forward current: Max. 625 mA

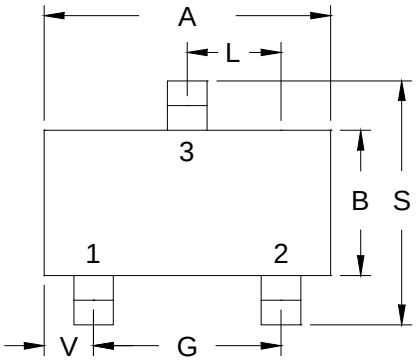
Absolute Maximum Ratings (Ta=25°C)

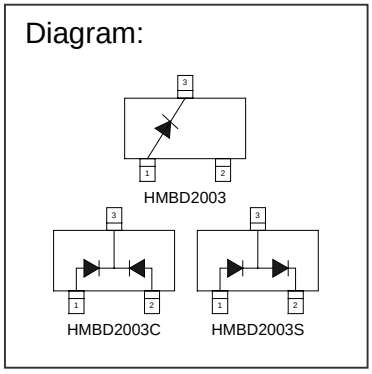
Characteristic	Symbol	Value	Unit
HMBD2003 Repetitive Peak Reverse Voltage	VRRM	250	V
HMBD2003C Repetitive Peak Reverse Voltage		250	
HMBD2003S Repetitive Peak Reverse Voltage		250	
HMBD2003 Continuous reverse voltage	VR	200	V
HMBD2003C Continuous reverse voltage		200	
HMBD2003S Continuous reverse voltage		200	
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	mV
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	-65~+150	°C

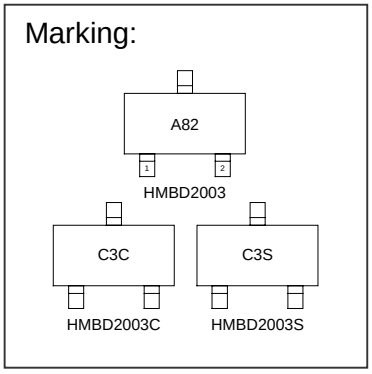
Characteristics (Ta=25°C)

Characteristic	Symbol	Condition	Min	Max	Unit
Forward Voltage	VF(1)	IF=100mA	-	1	V
	VF(2)	IF=200mA	-	1.25	
HMBD2003 Reverse Current	IR	VR=200V	-	100	nA
HMBD2003C Reverse Current		VR=200V	-	100	
HMBD2003S Reverse Current		VR=200V	-	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_R	BV_R	IR=100uA	250	-	V

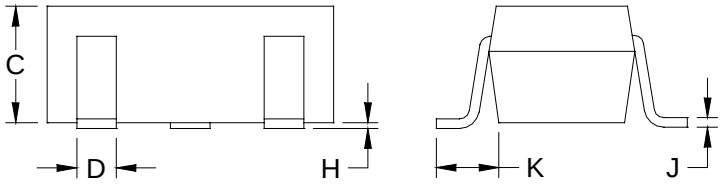
SOT-23 Dimension







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



*: 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

Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
  Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
  Tel: 886-3-5983621~5 Fax: 886-3-5982931