



SKV1231

Hyperabrupt Junction Varactor Diode

Features

- Excellent linearity
- Ultra small plastic SMD package
- C6.0: 0.6 pF; ratio: 2.5
- Low series resistance

Applications

- Voltage controlled oscillators(VCO)

Description

The SKV1231 is a silicon hyperabrupt junction varactor diode, fabricated in planar technology, and encapsulated in the SOD523 ultra small plastic SMD package.

Absolute Maximum Ratings

Parameter	Symbol	Limit	Unit
Continuous Reverse Voltage	V_R	15	V
Peak Reverse Voltage ⁽¹⁾	V_{RM}	18	V
Continuous Forward Current	I_F	20	mA
Storage Temperature Range	T_{STG}	-55~+150	°C
Operating Junction Temperature	T_J	-55~+150	°C

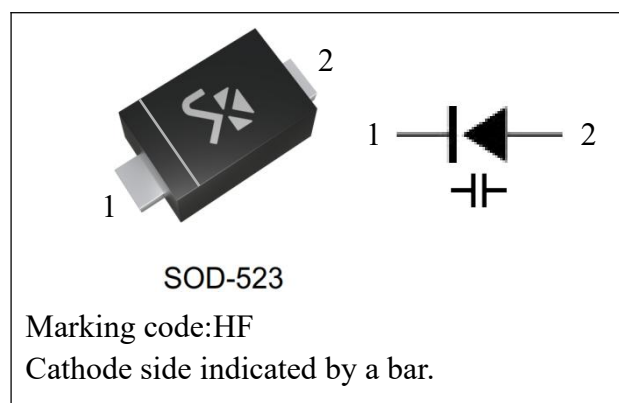
Note:(1).The test needs to be done with a 10kΩ resistor in series

Electrical Characteristics ($T_J=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R=15\text{V}$	-	-	20	nA
Reverse Voltage	V_R	$I_R=10\mu\text{A}$	20	-	-	V
Series Resistance	r_s	$f=470\text{MHz}, V_R=1\text{V}$	-	2.5	-	Ω
Capacitance	$C_{d(1V)}$	$V_R=1\text{V}, f=1\text{MHz}$	1.43	-	1.72	pF
	$C_{d(3V)}$	$V_R=3\text{V}, f=1\text{MHz}$	-	0.97	-	pF
	$C_{d(6V)}$	$V_R=6\text{V}, f=1\text{MHz}$	-	0.61	-	pF
Capacitance Ratio	$C_{d(1V)}/C_{d(3V)}$	$f=1\text{MHz}$	-	1.6	-	
Capacitance Ratio	$C_{d(1V)}/C_{d(6V)}$	$f=1\text{MHz}$	-	2.5	-	

Pinning

	Description
1	Cathode
2	anode

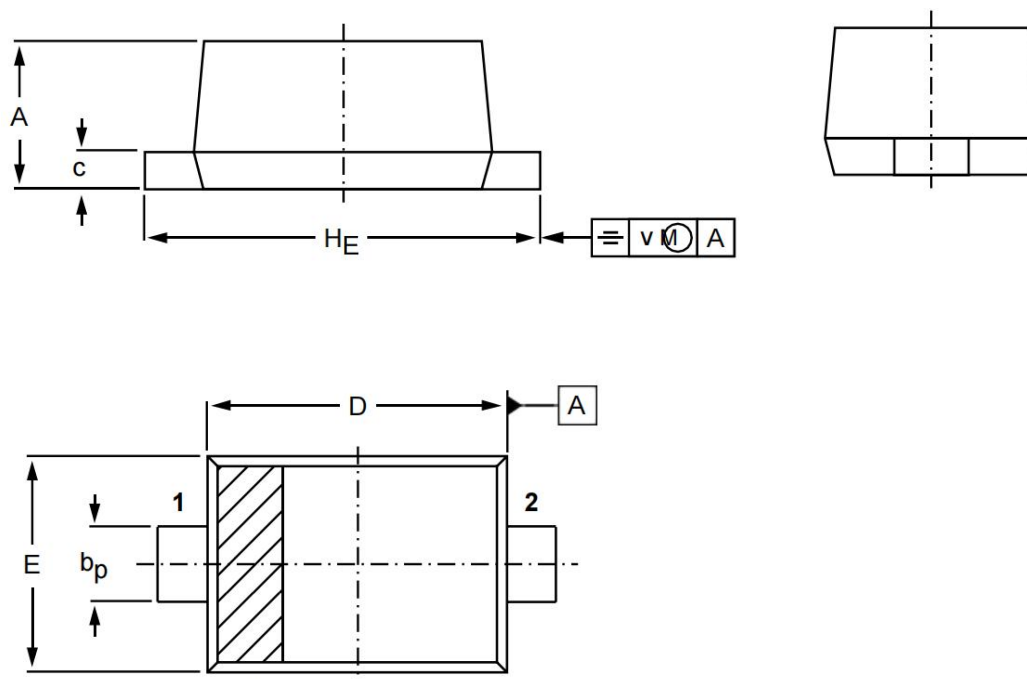




Package Information

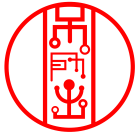
SOD-523

Dimensions in mm



Dimensions(mm are the original dimensions)

UNIT	A	b _p	c	D	E	H _E	v
mm	0.7 0.5	0.35 0.25	0.2 0.1	1.3 1.1	0.9 0.7	1.7 1.5	0.15



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