



SKV1705

Features

- Excellent linearity
- Ultra small plastic SMD package
- C4: 6 pF; ratio: 3
- Low series resistance

Applications

- Voltage controlled oscillators(VCO)

Description

The SKV1705 is a silicon hyperabrupt junction varactor diode, fabricated in planar technology, and encapsulated in the SOD523 ultra small plastic SMD package.

Maximum Ratings

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	12	V
Peak Reverse Voltage ⁽¹⁾	V_{RM}	12	V
Continuous Forward Current	I_F	20	mA
Storage Temperature Range	T_{STG}	-55~+150	°C
Operating Junction Temperature	T_J	-55~+125	°C

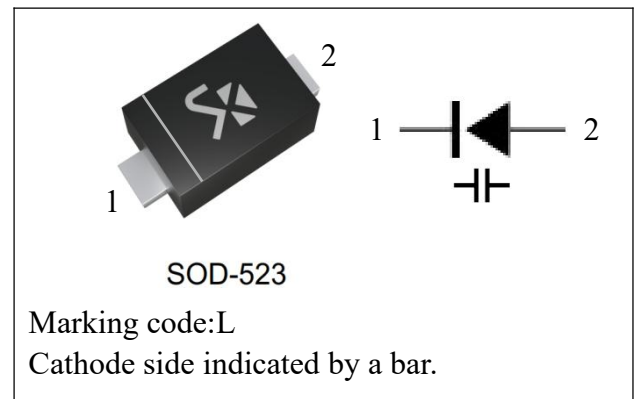
Note:(1).The test needs to be done with a 10kΩ resistor in series

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R=8\text{V}$	-	-	20	nA
Reverse Voltage	V_R	$I_R=10\mu\text{A}$	12	-	-	V
Series Resistance	r_s	$f=470\text{MHz}, V_R=1\text{V}$	-	-	0.7	Ω
Capacitance	$C_{d(1V)}$	$V_R=1\text{V}, f=1\text{MHz}$	17.3	-	19.3	pF
	$C_{d(4V)}$	$V_R=4\text{V}, f=1\text{MHz}$	5.0	-	6.6	pF
Capacitance Ratio	$C_{d(1V)}/C_{d(4V)}$	$f=1\text{MHz}$	2.8	3.0	-	

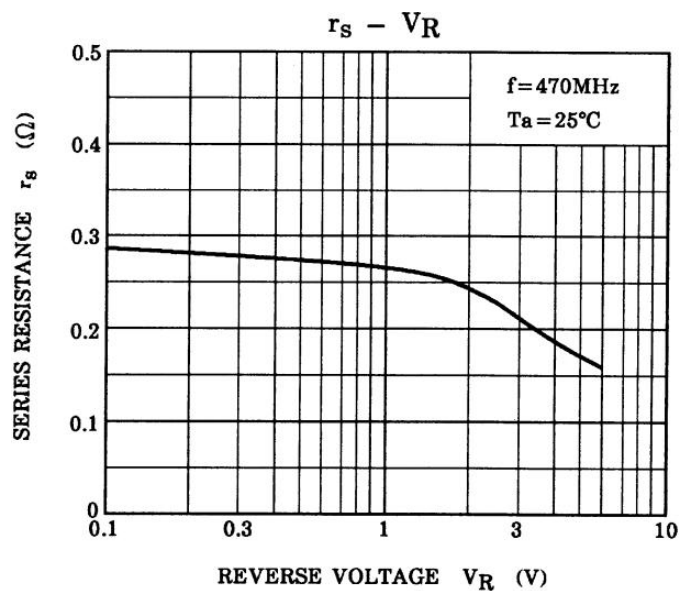
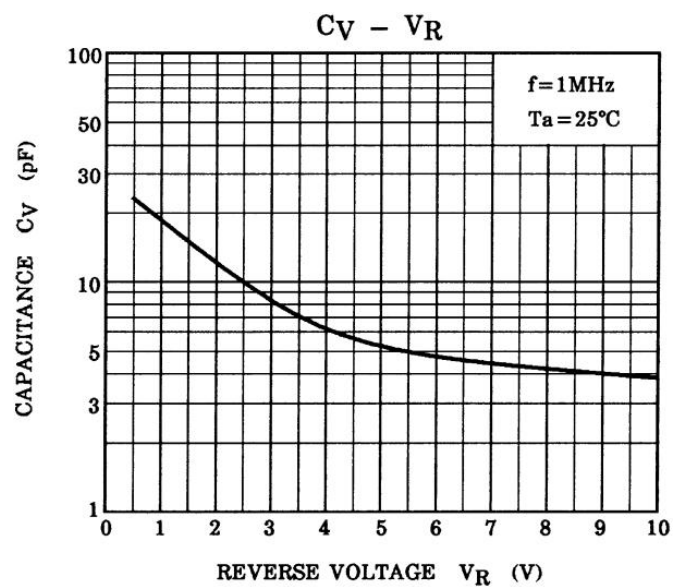
Pinning

Pin	Description
1	Cathode
2	anode





Typical Characteristics



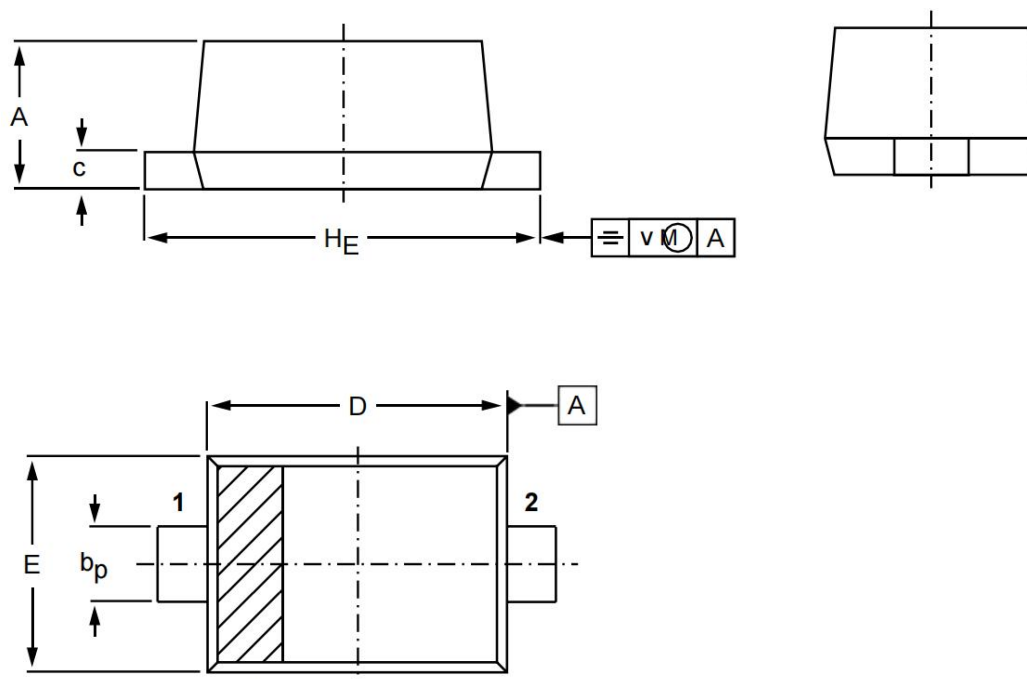


SKV1705

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	0.1



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