SKV1763

Hyperabrupt Junction Varactor Diode

Features

- Excellent linearity
- Ultra small plastic SMD package
- C2.5: 2.5pF; ratio: 2.3
- Low series resistance

Applications

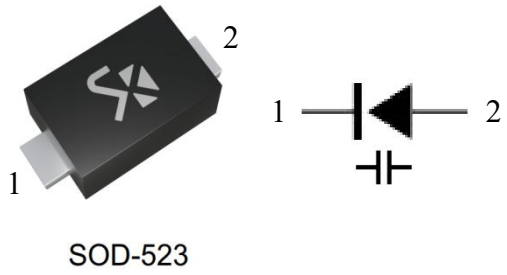
- Voltage controlled oscillators(VCO)

Description

The SKV1763 is a silicon hyperabrupt junction varactor diode, fabricated in planar technology, and encapsulated in the SOD523 ultra small plastic SMD package.

Pinning

	Description
1	Cathode
2	anode



SOD-523

Marking code:YF

Absolute Maximum Ratings

Parameter	Symbol	Limit	Unit
Continuous Reverse Voltage	V_R	8	V
Peak Reverse Voltage(1)	V_{RM}	8	V
Continuous Forward Current	I_F	20	mA
Storage Temperature Range	T_{STG}	-55~+150	℃
Operating Junction Temperature	T_J	-55~+150	℃

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

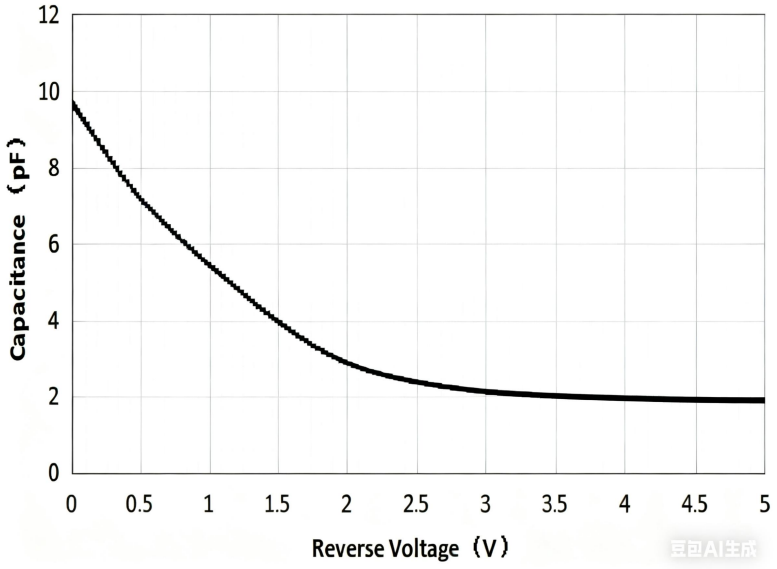
Electrical Characteristics (T_J=25℃ unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Current	I_R	V_R=8V	-	-	20	nA
Reverse Voltage	V_R	I_R=10uA	10	-	-	V
Series Resistance	r_s	f=470MHz,V_R=1V	-	-	0.7	Ω
Capacitance	$C_{d(0.5V)}$	V_R=0.5V,f=1MHz	5.6	-	7.3	pF
	$C_{d(2.5V)}$	V_R=2.5V,f=1MHz	2.3	-	2.9	pF
Capacitance Ratio	$C_{d(0.5V)}/C_{d(2.5V)}$	f=1MHz	2.5	-	-	-

Capacitance vs. Reverse Voltage

V_R(V)	C_T(pF)
0.0	9.8±0.3
0.5	7.2±0.3
1.0	5.5±0.3
1.5	4.0±0.3
2.0	2.9±0.2
2.5	2.4±0.1
3.0	2.1±0.1
3.5	2.0
4.0	1.9
4.5	1.9
5.0	1.9

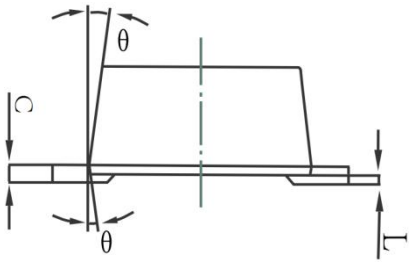
Typical Characteristics

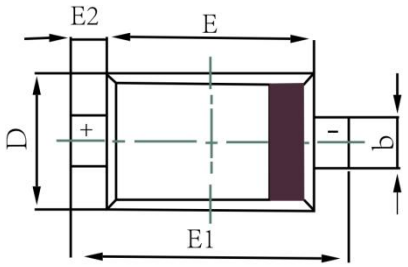


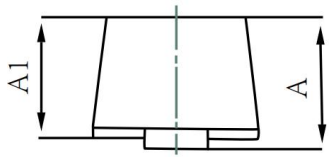
Package Information

SOD-523

Dimensions in mm

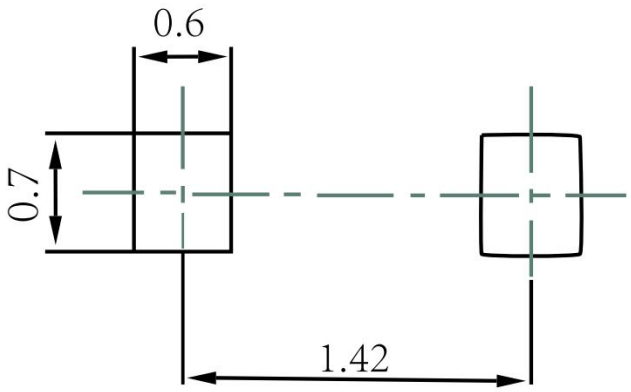






Unit	A	A1	b	c	D	E	E1	E2	L	θ
Max.	0.77	0.70	0.35	0.15	0.85	1.30	1.70	0.20 REF.	0.07	7° REF.
Min.	0.51	0.50	0.25	0.08	0.75	1.10	1.50		0.01	

Suggested Pad Layout



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