



Variable Capacitance Diode Silicon Type

Features

- Excellent linearity
- High capacitance ratio: $C_{0.2V}/C_{2.3V}=2.5(\text{Min})$
- Low series resistance: $r_s \leq 0.6\Omega$
- Package: SOD-523

Applications

- Frequency modulation in FM MP3/MP4
- FM and AFC in communication set

Marking:L2

Absolute Maximum Ratings

Parameter	Symbol	Limit	Unit
Reverse Voltage	V_{RM}	6	V
Forward Voltage($I_F=20\text{mA}$)	V_F	1	V
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{STG}	-55~+125	°C
Assignment Temperature Range	T_{amb}	-55~+100	°C

Electrical Characteristics ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R=6\text{V}$			10	nA
Forward Voltage	V_F	$I_F=20\text{mA}$			1	V
Capacitance	C_1	$V_{R1}=0.2\text{V}$	28.2	31	33.5	pF
Capacitance	C_2	$V_{R2}=2.3\text{V}$	7.2		11.2	pF
Capacitance Ratio	C_1/C_2	$V_{R1}=0.2\text{V}, V_{R2}=2.3\text{V}$	2.5			
Series Resistance	r_s	$C_0=14\text{pF}, f=470\text{MHz}$		0.35	0.6	Ω

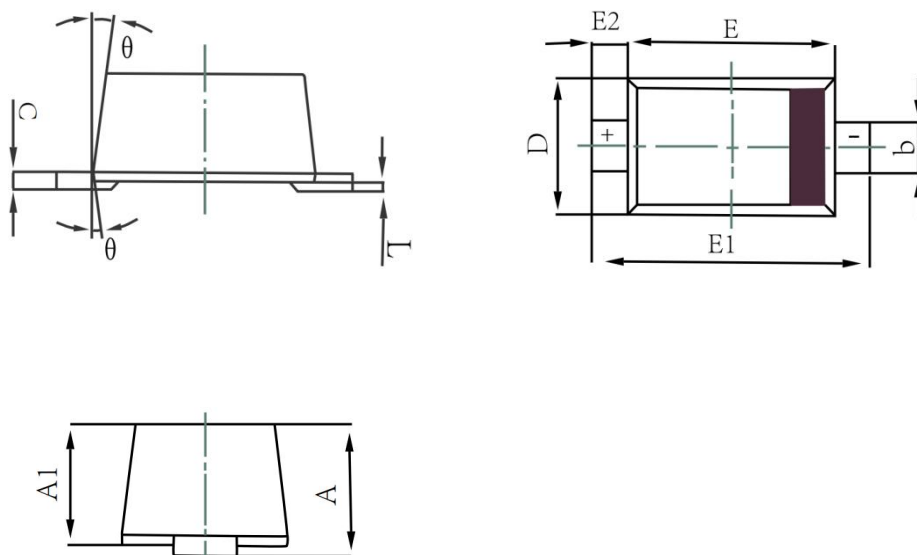
**SOD-523**



Package Information

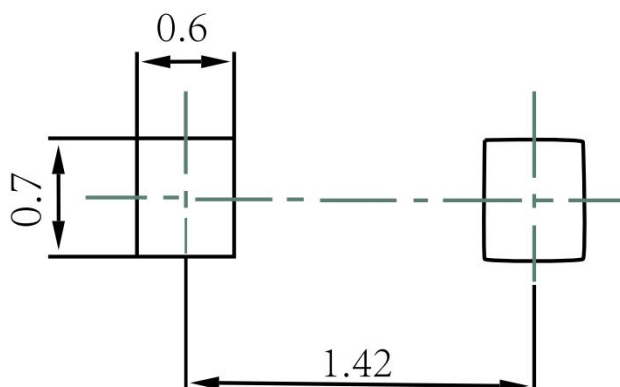
SOD-523

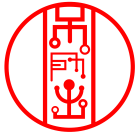
Dimensions in mm



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	0.07	7°
Min.	0.51	0.50	0.25	0.08	0.75	1.10	1.50	REF.	0.01	REF.

Suggested Pad Layout





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