

1SV305

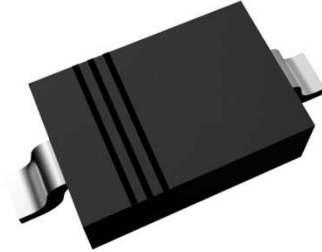
SK VARIABLE CAPACITANCE DIODE SILICON TYPE

Application

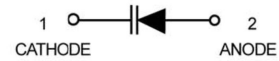
- Frequency modulation in FM MP3/MP4
- FM、VCO and AFC in communication set

Features

- Excellent linearity
- Hing Capacitance ratio: $C_{1V}/C_{4V} > 2.8(\text{Min})$
- Low series resistance: $r_s \leq 0.32\Omega$
- package: SOD-523



SOD-523

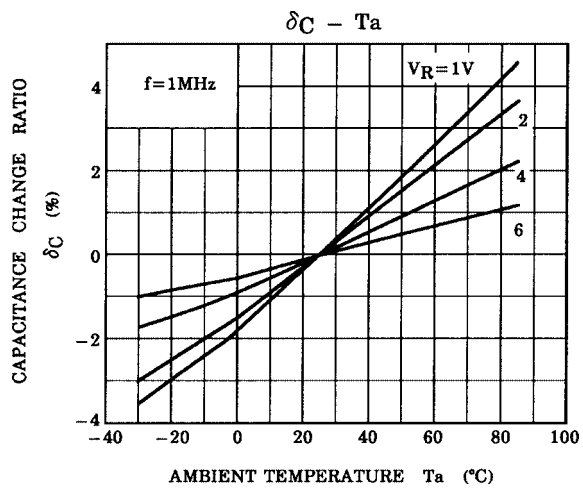
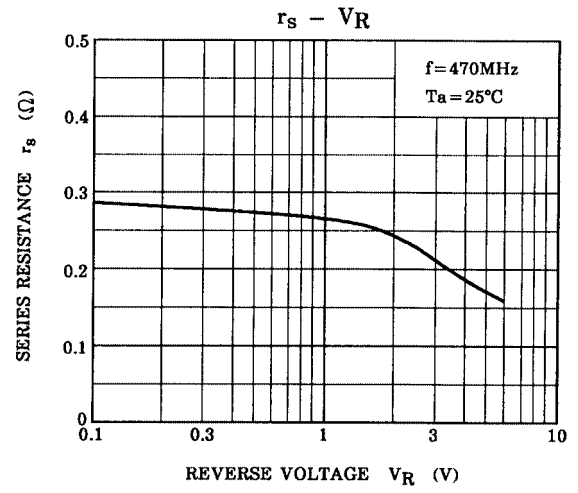
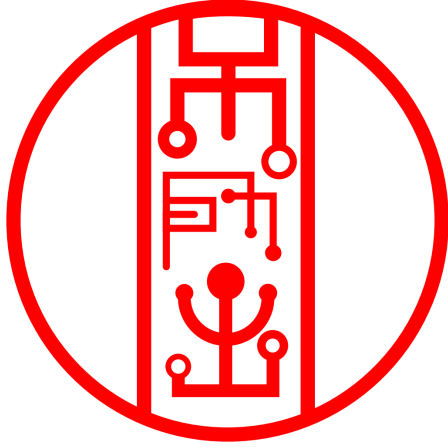


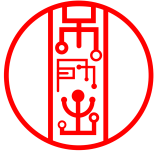
Maximum ratings

Parameter	Symbol	Rating		Unit
		Min	Max	
Assignment Temperature Range	T_{amb}	-55	100	°C
Storage Temperature Range	T_{atg}	-55	125	°C
Maximum Reverse voltage	V_{RM}		10	V
Junction Temperature	T_j		125	°C
Forward voltage($I_F=20\text{mA}$)	V_F		1	V

Electrical Characteristics(at $T_{amb}=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Diode capacitance	C_1	$V_{R1}=1\text{V}$	17.3	18	19.3	PF
Diode capacitance	C_2	$V_{R2}=4\text{V}$	5.3		6.6	PF
Capacitance ratio	C_1/C_2	$V_{R1}=1\text{V}, V_{R2}=4\text{V}$	2.8	3		
Reverse Current	I_R	$V_R=10\text{V}$			10	nA
Forward Voltage	V_F	$I_F=20\text{mA}$			1	V
serises resistance	r_s	$F=470\text{MHz}, C_0=14\text{pF}$		0.27	0.32	Ω



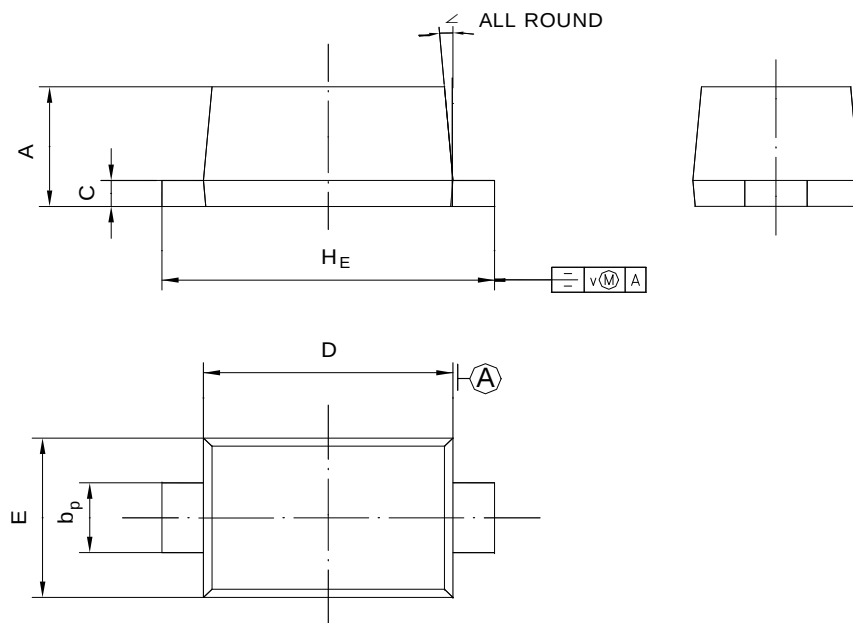


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°