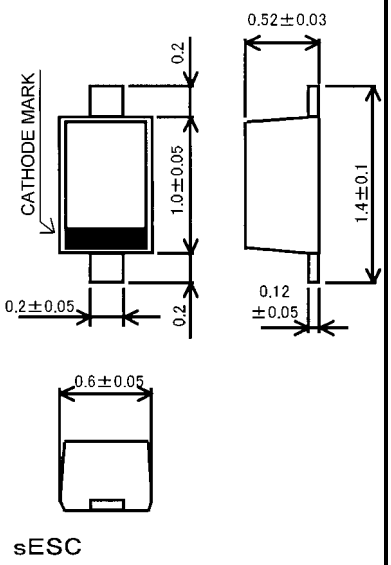
TOSHIBA Diode Silicon Epitaxial Planar Type

JDV2S13S

VCO for UHF Band Radio

- High capacitance ratio: C_{1V}/C_{4V} = 2.8 (typ.)
- Low series resistance: r_s = 0.55 Ω (typ.)
- This device is suitable for use in a small-size tuner.

Unit: mm



JEDEC	—
JEITA	—
TOSHIBA	1-1K1A

Weight: 0.0011 g (typ.)

Maximum Ratings (Ta = 25°C)

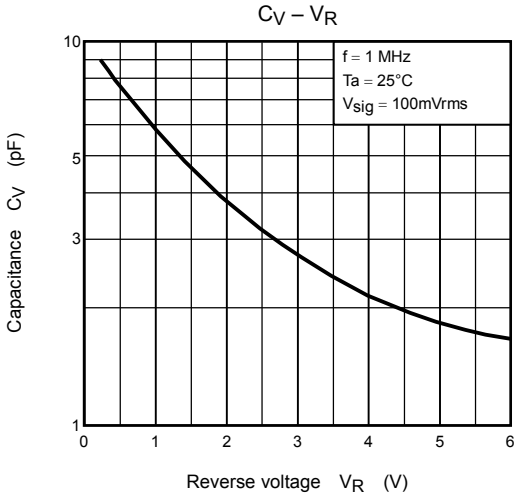
Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	10	V
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	−55~150	°C

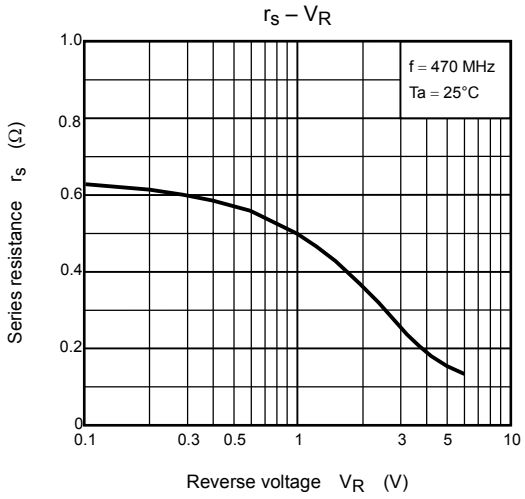
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	I_R = 1 μA	10	—	—	V
Reverse current	I_R	V_R = 10 V	—	—	3	nA
Capacitance	C_{1V}	V_R = 1 V, f = 1 MHz	5.7	—	6.7	pF
	C_{4V}	V_R = 4 V, f = 1 MHz	1.85	—	2.45	
Capacitance ratio	C_{1V}/C_{4V}	—	2.7	2.8	—	—
Series resistance	r_s	V_R = 1 V, f = 470 MHz	—	0.55	0.7	Ω

Note: Signal level when capacitance is measured: V_{sig} = 100 mVrms

Marking


CV – VR
f = 1 MHz
Ta = 25°C
Vsig = 100mVrms
Capacitance CV (pF)
10
5
3
1
0
1
2
3
4
5
6
Reverse voltage VR (V)


rs – VR
f = 470 MHz
Ta = 25°C
Series resistance rs (Ω)
1.0
0.8
0.6
0.4
0.2
0
0.1
0.3
0.5
1
3
5
10
Reverse voltage VR (V)

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000707EAA

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