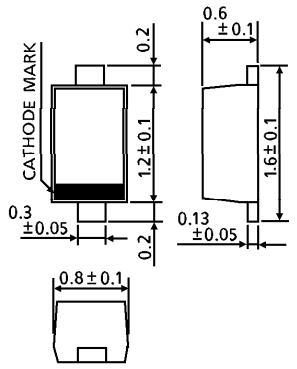
TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

1SV311

VCO FOR UHF BAND RADIO

Unit in mm

- High Capacitance Ratio : $C_{1V}/C_{4V}=2.1$ (Typ.)
- Low Series Resistance : $r_s=0.28\Omega$ (Typ.)
- Useful for Small Size Tuner



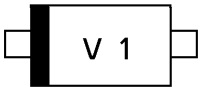
ESC	
JEDEC	—
EIAJ	—
TOSHIBA	1-1G1A

Weight : 0.0014g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	10	V
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

MARKING



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	$I_R=1\mu A$	10	—	—	V
Reverse Current	I_R	$V_R=10V$	—	—	3	nA
Capacitance	C1V	$V_R=1V$, f=1MHz	9.7	—	11.1	pF
Capacitance	C_{4V}	$V_R=4V$, f=1MHz	4.45	—	5.45	pF
Capacitance Ratio	C_{1V}/C_{4V}	—	1.8	2.1	—	—
Series Resistance	r_s	$V_R=1V$, f=470MHz	—	0.28	0.4	Ω

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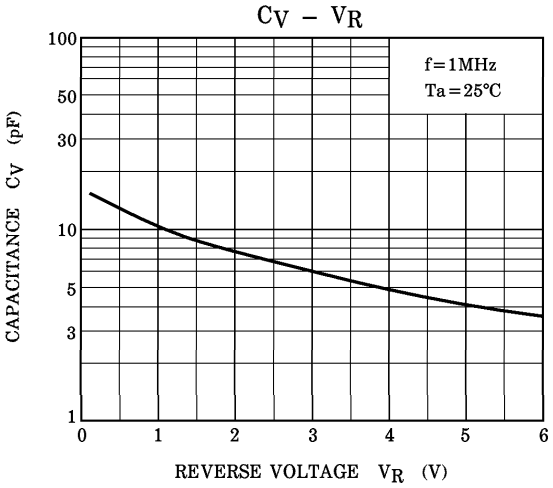
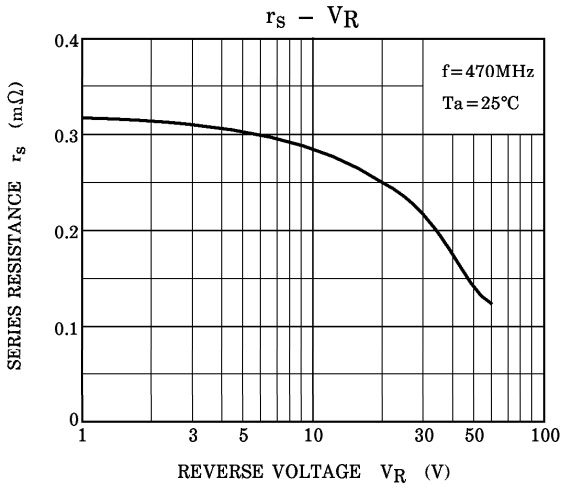

CV – VR
f=1MHz
Ta=25°C
CAPACITANCE CV (pF)
100
50
30
10
5
3
1
0
1
2
3
4
5
6
REVERSE VOLTAGE VR (V)


rs – VR
f=470MHz
Ta=25°C
SERIES RESISTANCE rs (mΩ)
0.4
0.3
0.2
0.1
0
1
3
5
10
30
50
100
REVERSE VOLTAGE VR (V)