

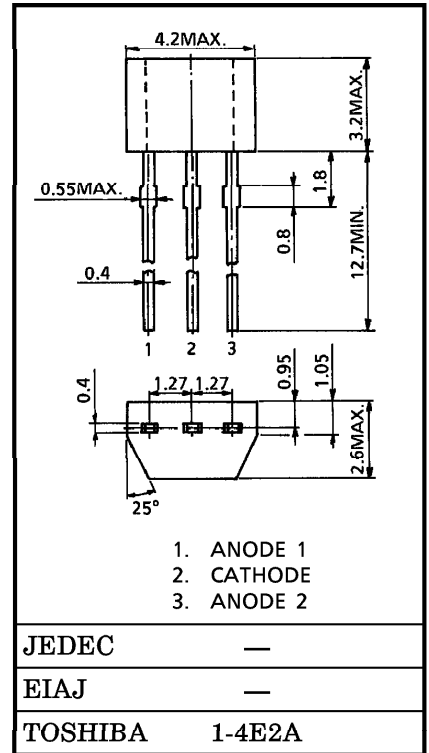
TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

1SV103

FM RADIO BAND TUNING APPLICATIONS

Unit in mm

- Low Series Resistance : $r_s = 0.35 \Omega$ (Typ.)
- Small Package.



MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

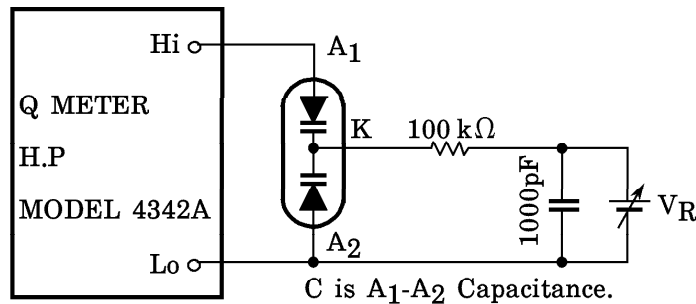
CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	32	V
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Weight : 0.13 g

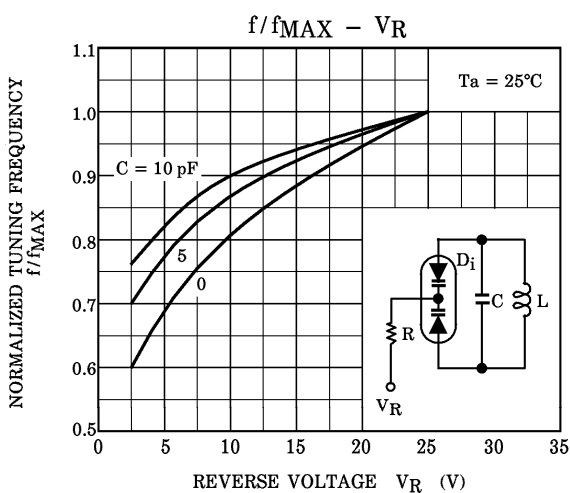
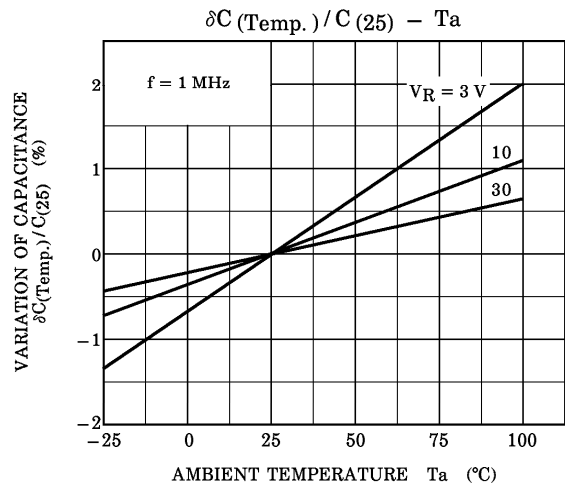
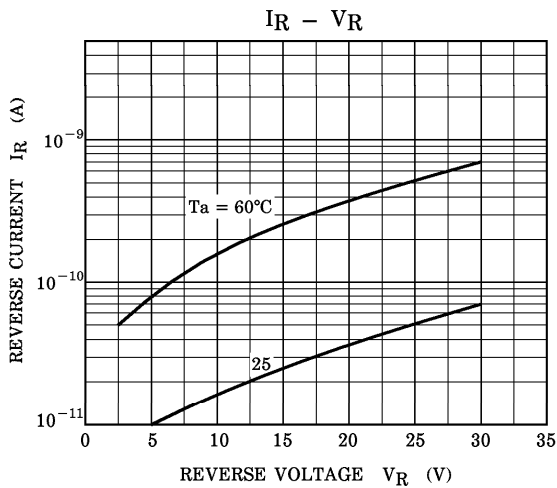
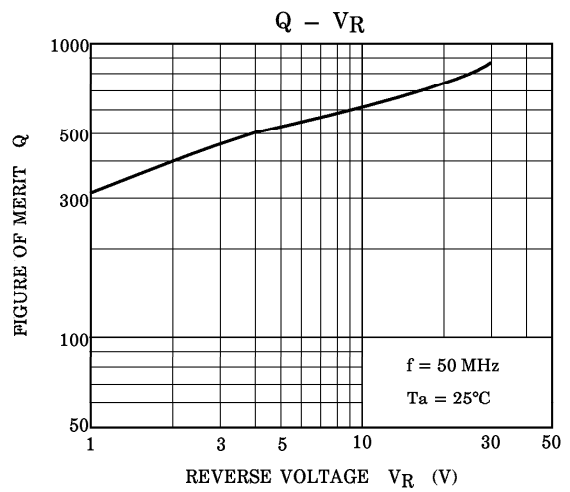
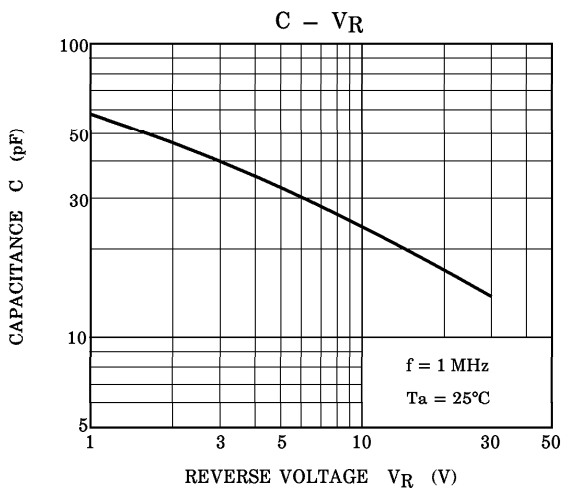
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	$I_R = 10 \mu\text{A}$	32	—	—	V
Reverse Current	I_R	$V_R = 30 \text{V}$	—	—	50	nA
Capacitance	C_{3V}	$V_R = 3 \text{V}, f = 1 \text{MHz}$	37	—	42	pF
Capacitance	C_{30V}	$V_R = 30 \text{V}, f = 1 \text{MHz}$	13.2	—	16.2	pF
Capacitance Ratio	C_{3V}/C_{30V}	—	2.6	—	2.9	
Series Resistance	r_s	$C = 20 \text{pF}, f = 50 \text{MHz}$ (Note)	—	0.35	0.60	Ω

(Note) : r_s Test circuit



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