

9097250 TOSHIBA (DISCRETE/OPTO)

67C 09366 DT-07-19

Silicon Epitaxial Planar Type  
Variable Capacitance Diode

# 1SV123

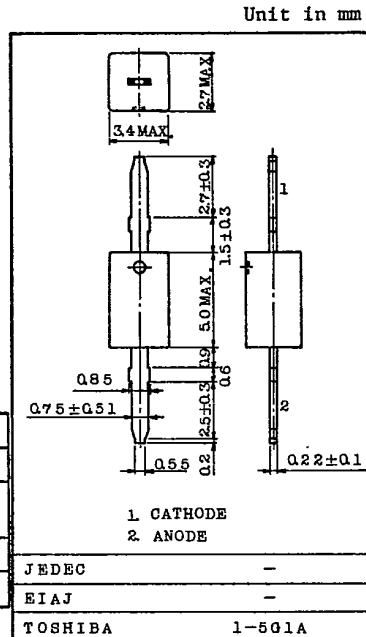
TV TUNER, VHF UHF BAND ELECTRONIC TUNING APPLICATIONS.

FEATURES:

- High Capacitance Ratio :  $C_{3V}/C_{25V}=5.3$  (Typ.)
- Low Series Resistance :  $r_s=0.45\Omega$  (Typ.)

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	$V_R$	30	V
Peak Reverse Voltage	$V_{RM}$	35 ( $R_L=10k\Omega$ )	V
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ 125	$^\circ\text{C}$



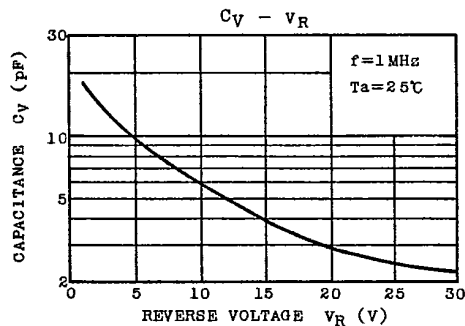
ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	$V_R$	$I_R=1\mu\text{A}$	30	-	-	V
Reverse Current	$I_R$	$V_R=28\text{V}$	-	-	10	nA
Capacitance	$C_{3V}$	$V_R=3\text{V}, f=1\text{MHz}$	12.04	-	13.63	pF
Capacitance	$C_{25V}$	$V_R=25\text{V}, f=1\text{MHz}$	2.172	-	2.454	pF
Capacitance Ratio	$C_{3V}/C_{25V}$		4.95	-	6.05	
Series Resistance	$r_s$	$C=9\text{pF}, f=470\text{MHz}$	-	-	0.6	$\Omega$

Note : Available in matched group for capacitance to 2.5%.

$$\frac{C(\text{Max.}) - C(\text{Min.})}{C(\text{Min.})} \leq 0.025$$

( $V_R=3\text{V} \sim 25\text{V}$ )



TOSHIBA CORPORATION

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