

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV239

VCO for UHF Radio

Unit: mm

- Ultra low series resistance: $r_s = 0.44 \Omega$ (typ.)
- Useful for small size set

Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	15	V
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~125	$^\circ\text{C}$

JEDEC	—	
JEITA	—	
TOSHIBA	1-1E1A	

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Weight: 0.004 g (typ.)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 1 \mu\text{A}$	15	—	—	V
Reverse current	I_R	$V_R = 15 \text{ V}$	—	—	3	nA
Capacitance	$C_{2 \text{ V}}$	$V_R = 2 \text{ V}, f = 1 \text{ MHz}$	3.8	4.25	4.7	pF
Capacitance	$C_{10 \text{ V}}$	$V_R = 10 \text{ V}, f = 1 \text{ MHz}$	1.5	1.75	2.0	pF
Capacitance ratio	$C_{2 \text{ V}}/C_{10 \text{ V}}$	—	2.0	2.4	—	—
Series resistance	r_s	$V_R = 1 \text{ V}, f = 470 \text{ MHz}$	—	0.44	0.6	Ω

Marking

