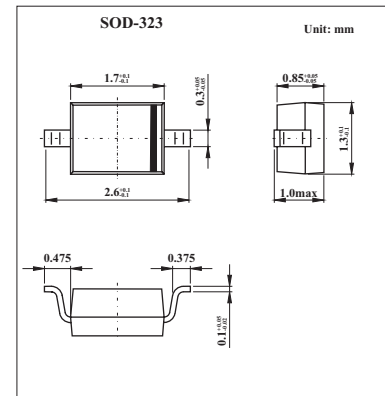


Silicon Epitaxial Planar Diode

1SV231

■ Features

- High Capacitance Ratio: $C_{2V}/C_{25V} = 8(\text{Typ.})$
- Excellent C-V Characteristics, and Small Tracking Error.
- Useful for small size Tuner.

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Peak Reverse Voltage	V_{RM}	35($R_L = 10\text{ K}\Omega$)	V
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	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_{2V}	$f = 1\text{ MHz}; V_R = 2\text{ V}$	41	45	49.5	pF
	C_{25V}	$f = 1\text{ MHz}; V_R = 25\text{ V}$	2.7	3	3.4	
Capacitance Ratio	C_{2V}/C_{25V}		14	15		
Series Resistance	r_s	$V_R = 5\text{ V}, f = 470\text{ MHz}$		1.05	1.25	Ω

Note :

Available in matched group for capacitance to 2.5%.

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

($V_R = 2 \sim 25\text{ V}$)

■ Marking

Marking	TA
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