

TOSHIBA Diode Silicon Epitaxial Pin Type

1SV172

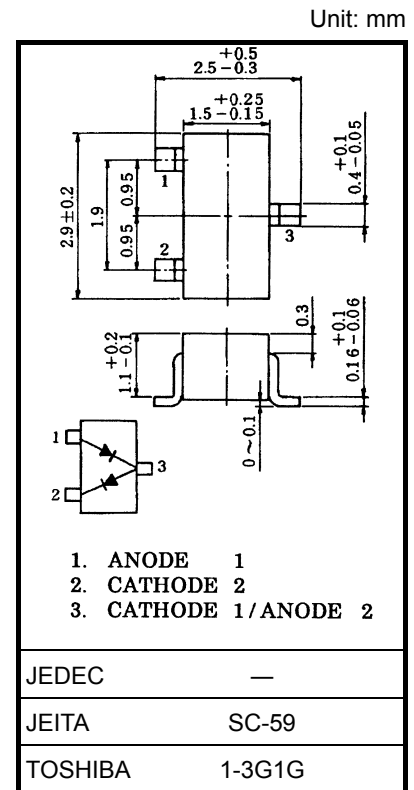
VHF~UHF Band RF Attenuator Applications

- Useful for small size tuner
- Small total capacitance: $C_T = 0.25$ pF (typ.)
- Low series resistance: $r_s = 3 \Omega$ (typ.)

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

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	50	V
Forward current	I_F	50	mA
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~125	$^\circ\text{C}$

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).



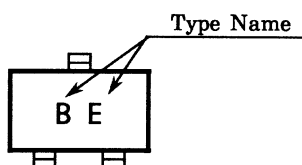
Weight: 0.013 g (typ.)

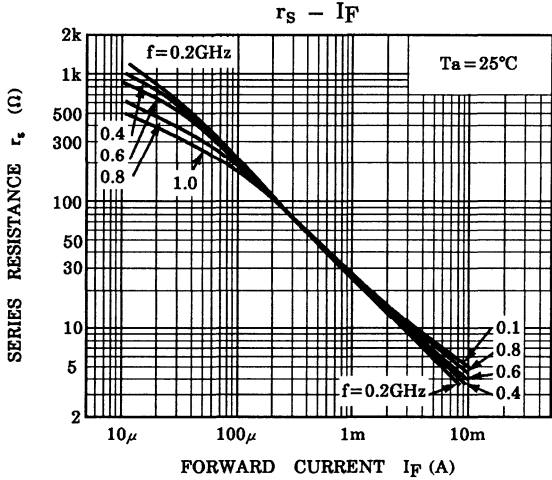
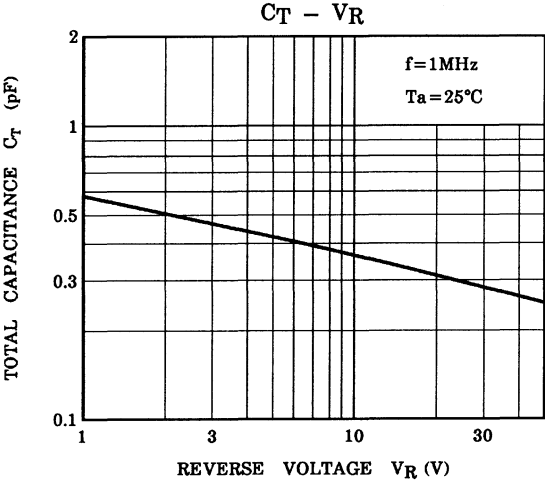
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 10 \mu\text{A}$	50	—	—	V
Reverse current	I_R	$V_R = 50$ V	—	—	0.1	μA
Forward voltage	V_F	$I_F = 50$ mA	—	0.95	—	V
Total capacitance (Note)	C_T	$V_R = 50$ V, $f = 1$ MHz	—	0.25	—	pF
Series resistance	r_s	$I_F = 10$ mA, $f = 100$ MHz	—	3	—	Ω

Note: C_T is measured by 3 terminal method with capacitance bridge.

Marking





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