

TOSHIBA Diode Silicon Epitaxial Pin Type

1SV312

VHF~UHF Band RF Attenuator Applications

- Two independent diodes mounted onto a 4-pin ultra compact package and it is suitable for high-density circuit design.
- Low capacitance: $C_T = 0.25 \text{ pF}$ (typ.)
- Low series resistance: $r_s = 3 \Omega$ (typ.)

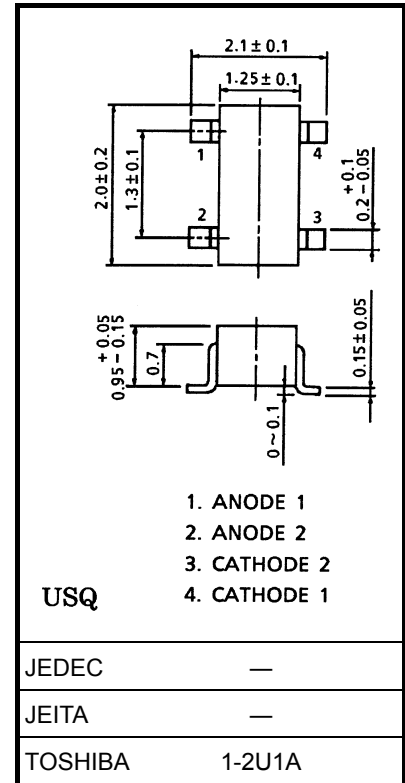
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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).

Unit: mm



USQ

1. ANODE 1
2. ANODE 2
3. CATHODE 2
4. CATHODE 1

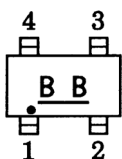
JEDEC	—
JEITA	—
TOSHIBA	1-2U1A

Weight: 0.006 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	$V_R = 50 \text{ V}$	—	—	0.1	μA
Forward voltage	V_F	$I_F = 50 \text{ mA}$	—	0.95	1	V
Total capacitance	C_T	$V_R = 50 \text{ V}, f = 1 \text{ MHz}$	—	0.25	0.4	pF
Series resistance	r_s	$I_F = 10 \text{ mA}, f = 100 \text{ MHz}$	—	3	—	Ω

Marking



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20070701-EN GENERAL

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