

TOSHIBA Diode Silicon Epitaxial Pin Type

# 1SV312

## VHF~UHF Band RF Attenuator Applications

Unit: mm

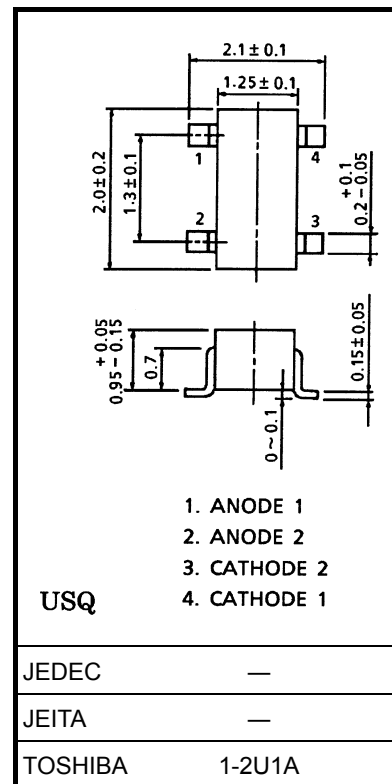
- Two independent diodes mounted onto a 4-pin ultra compact package and it is suitable for high-density circuit design.
- Low capacitance:  $C_T = 0.25$  pF (typ.)
- Low series resistance:  $r_s = 3$   $\Omega$  (typ.)

## Absolute Maximum Ratings (Ta = 25°C)

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

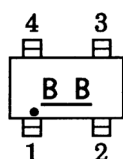


Weight: 0.006 g (typ.)

## Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	$V_R$	$I_R = 10$ $\mu$ A	50	—	—	V
Reverse current	$I_R$	$V_R = 50$ V	—	—	0.1	$\mu$ A
Forward voltage	$V_F$	$I_F = 50$ mA	—	0.95	1	V
Total capacitance	$C_T$	$V_R = 50$ V, $f = 1$ MHz	—	0.25	0.4	pF
Series resistance	$r_s$	$I_F = 10$ mA, $f = 100$ MHz	—	3	—	$\Omega$

## Marking



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20070701-EN GENERAL

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