Unit: mm



# Product for Use Only as Protection against Electrostatic Discharge (ESD).

- \* This product is for protection against electrostatic discharge (ESD) only and is not intended for any other usage, including without limitation, the constant voltage diode application.
- 2terminal ultra small package suitable for mounting on small space.

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

Characteristic	Symbol	Rating	Unit
Power dissipation	Р	150*	mW
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°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.

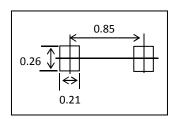
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

\*: Mounted on a glass epoxy circuit board of 20  $\times$  20 mm, pad dimension of 4  $\times$  4 mm.

# #0.07() A #0.02 #0.07() A #0.02

Weight: 0.0006 g (typ.)

#### Pad Dimension(Reference)Unit: mm



#### **Electrical Characteristics (Ta = 25°C)**

Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	Vz	Iz = 5mA	7.7	8.2	8.7	V
Dynamic impedance	ZZ	I <sub>Z</sub> = 5mA	_	_	30	Ω
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 6.5V	_	_	0.5	μA
Total capacitance (between Cathode and Anode)	Ст	V <sub>R</sub> = 0 V, f = 1 MHz		20	_	pF

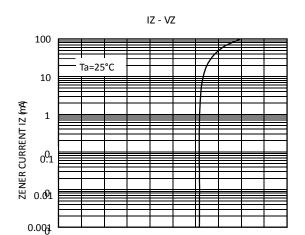


## **Guaranteed Level of Esd Immunity**

Test Condition	ESD Immunity Level
IEC61000-4-2 (Contact discharge)	±30kV

Criterion: No damage to device elements

3



5 6 7 8

ZENER VOLTAGE VZ (V)

10 11 12

## **Equivalent Circuit (Top View)**



