TOSHIBA Diodes for Protecting against ESD

# DF3A6.8CT

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

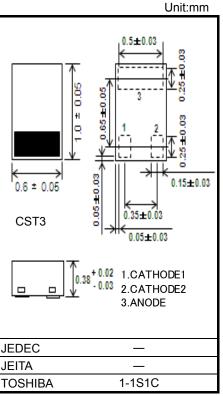
- \*This product is for protection against electrostatic discharge (ESD) only and is not intended for any other usage, including without limitation, the constant voltage diode application.
- The mounting of two devices on an ultra-compact package allows the number of parts and the mounting cost to be reduced.

#### 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 to 150	°C

<sup>\*:</sup> Mounted on FR4 board (10 mm  $\times$  10 mm  $\times$  1 mm(t))

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.



Weight: 0.75 mg (typ.)

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).

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

Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	$V_{Z}$	I <sub>Z</sub> = 5 mA	6.4	6.8	7.2	V
Dynamic impedance	$Z_Z$	I <sub>Z</sub> = 5 mA	_	_	25	Ω
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 5 V	_	_	0.5	μА
Terminal capacitance (between Cathode and Anode)	C <sub>T</sub>	V <sub>R</sub> = 0 V, f = 1 MHz		45		pF

## **Guaranteed Level of ESD Immunity**

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

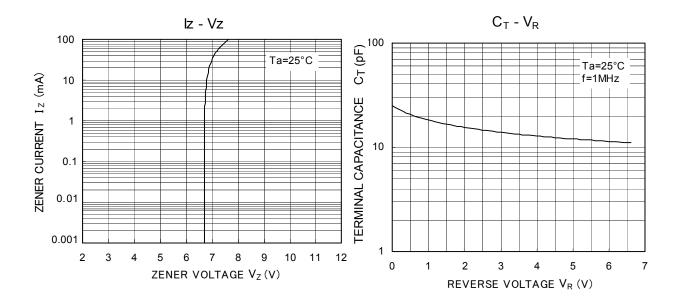
Criterion: No damage to device elements

### Marking

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







#### **RESTRICTIONS ON PRODUCT USE**

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