Unit: mm

TOSHIBA Diodes for Protecting against ESD

# DF5A3.6JE

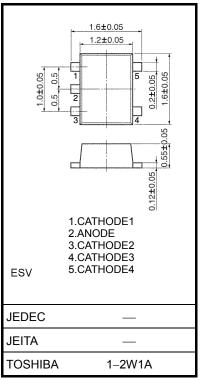
## Product for Use Only as Protection against Electrostatic Discharge (ESD)

- \* 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 four 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	100	MW
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	−55 to 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.



Weight: 0.003 g (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	VZ	I <sub>Z</sub> = 5 mA	3.4	3.6	3.8	V
Dynamic impedance	ZZ	I <sub>Z</sub> = 5 mA	_	_	130	Ω
Reverse current	Ι <sub>R</sub>	V <sub>R</sub> = 1 V	_	_	10	μA
Terminal capacitance (between Cathode and Anode)	CT	V <sub>R</sub> = 0 V, f = 1 MHz	_	110		pF

#### **Guaranteed Level of ESD Immunity**

Test Condition	ESD Immunity Level	
IEC61000-4-2 (Contact discharge)	$\pm$ 30 kV	

Criterion: No damage to device elements

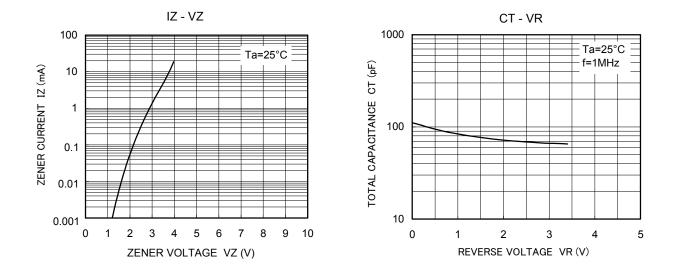
### **TOSHIBA**

### Marking

### Equivalent Circuit (Top View)







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