TOSHIBA Diodes for Protecting against ESD

# DF3A6.2LFV

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 in an ultra-compact package enables a reduction in the number of parts and in the mounting cost.
- Low terminal capacitance: C<sub>T</sub> = 6.5 pF (typ.)

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

Characteristic	Symbol	Rating	Unit
Power dissipation	Р	150*	mW
Junction temperature	Тј	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.

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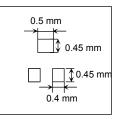
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Weight: 0.0015 g (typ.)

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).

\*: Mounted on FR4 board (25.4 mm  $\times$  25.4 mm  $\times$  1.6 mmt)



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

Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	VZ	$I_Z = 5 \text{ mA}$	5.9	6.2	6.5	V
Dynamic impedance	ZZ	I <sub>Z</sub> = 5 mA		_	50	Ω
Reverse current	I <sub>R</sub>	$V_R = 5 V$	_	_	2.5	μΑ
Terminal capacitance (between cathode and anode)	CT	$V_R = 0 V, f = 1 MHz$	_	6.5	_	pF

Start of commercial production 2005-05

Unit: mm

## **Guaranteed Level of ESD Immunity**

Test Condition	ESD Immunity Level		
IEC61000-4-2 (Contact discharge)	± 8 kV		

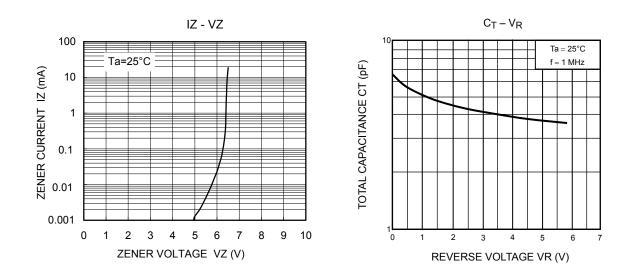
Criterion: No damage to device elements

#### Marking

## Equivalent Circuit (top view)







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