

TOSHIBA Diodes for Protecting Against ESD

DF3A3.6CT

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

Unit: mm

*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.

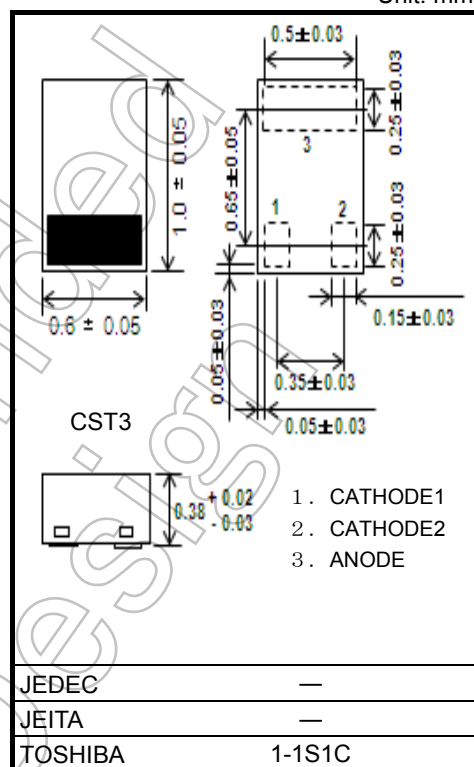
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Power dissipation	P	150*	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	$^\circ\text{C}$

* : Mounted on FR4 board (10 mm × 10 mm × 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.

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: 0.75 mg (typ.)

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Zener voltage	V_Z	$I_Z = 5 \text{ mA}$	3.4	3.6	3.8	V
Dynamic impedance	Z_Z	$I_Z = 5 \text{ mA}$	—	—	130	Ω
Reverse current	I_R	$V_R = 1 \text{ V}$	—	—	10	μA
Terminal capacitance (between Cathode and Anode)	C_T	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	—	110	—	pF

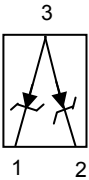
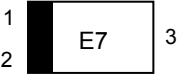
Start of commercial production
2009-01

Guaranteed Level of ESD Immunity

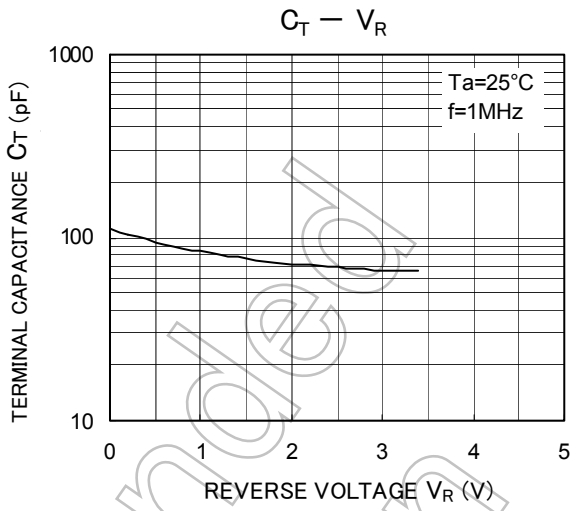
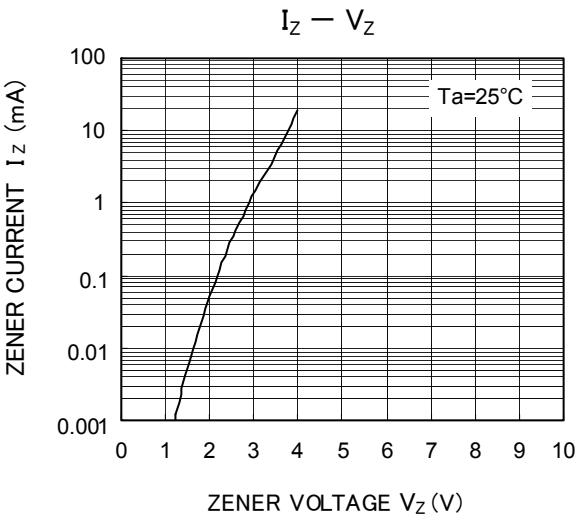
Test Condition	ESD Immunity Level
IEC61000-4-2 (Contact discharge)	± 30 kV

Criterion: No damage to device elements

Marking Equivalent Circuit (Top View)



Not Recommended for New Design



Not Recommended for New Design

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