

TOSHIBA Diodes for Protecting against ESD

DF3A6.8LCT

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.

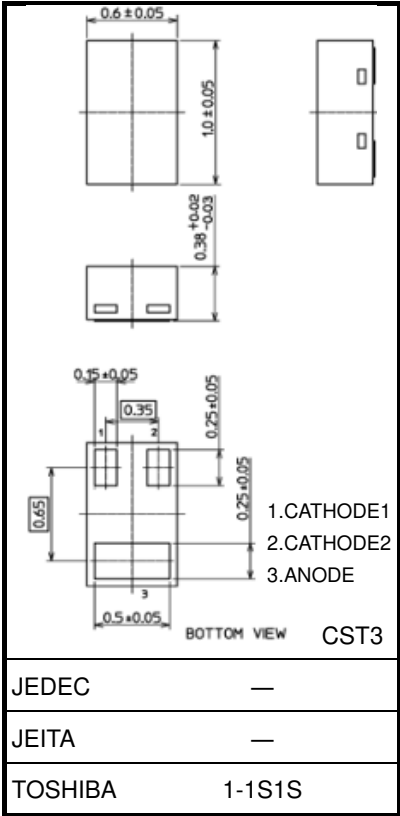
Unit: mm

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Power dissipation	P	150*	mW
Junction temperature	Tj	150	°C
Storage temperature range	Tstg	−55 to 150	°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).

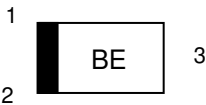


Weight: 0.75 mg (typ.)

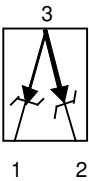
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Zener voltage	VZ	I _Z = 5 mA	6.5	6.8	7.1	V
Dynamic impedance	Z _Z	I _Z = 5 mA	—	—	50	Ω
Reverse current	I _R	V _R = 5 V	—	—	0.5	μA
Terminal capacitance (between Cathode and Anode)	C _T	V _R = 0 V, f = 1 MHz	—	6.0	—	pF

Marking



Equivalent Circuit (top view)

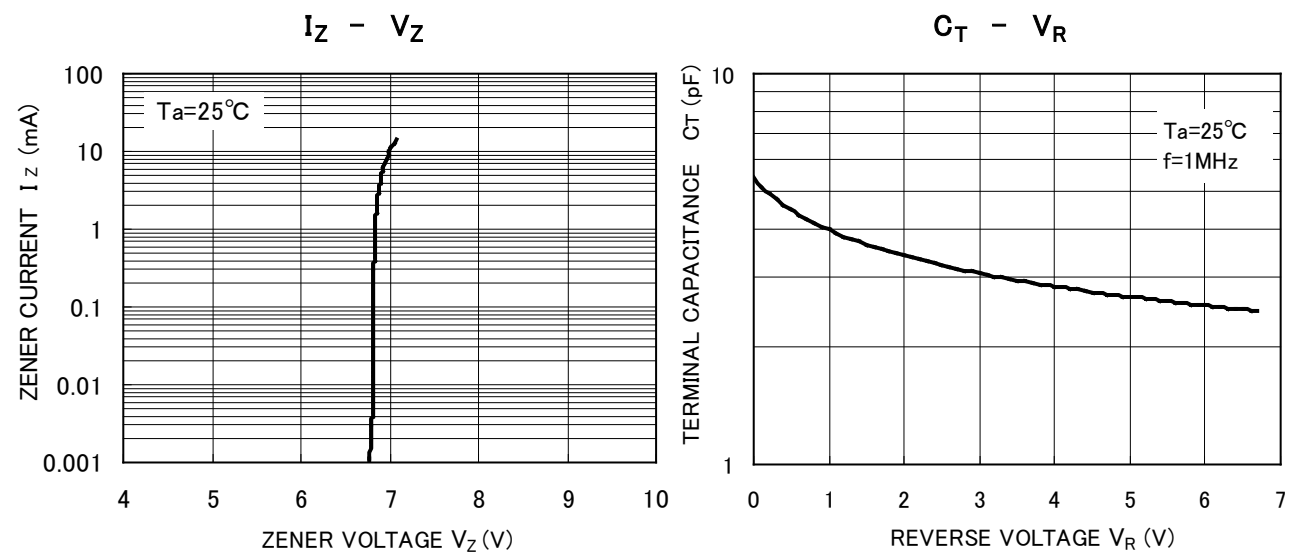


Start of commercial production
2010-04

Guaranteed Level of ESD Immunity

Test Condition	ESD Immunity Level
IEC61000-4-2 (Contact discharge)	$\pm$ 8kV

Criterion: No damage to device elements



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