TOSHIBA Diodes for Protecting against ESD

# **DF2S6.8CT**

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.

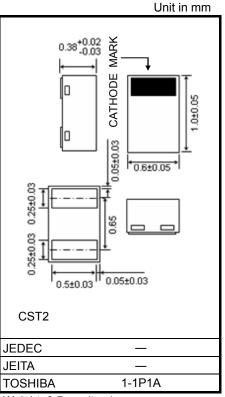
2 terminal ultra small package suitable for mounting on small space.

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

Characteristics	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 a glass epoxy circuit board of 20 mm × 20 mm, pad dimension of 4 mm × 4 mm.

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: 0.7 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)**

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	VZ	I <sub>Z</sub> = 5 mA	6.4	6.8	7.2	V
Dynamic impedance	Z <sub>Z</sub>	I <sub>Z</sub> = 5 mA	ı	1	30	Ω
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 5 V	ı	١	0.5	μА
Terminal capacitance	C <sub>T</sub>	$V_R = 0 V, f = 1 MHz$	1	25		pF

### **Guaranteed Level of Esd Immunity**

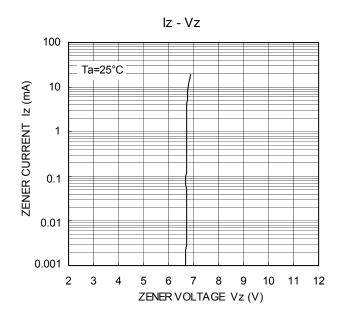
Test Condition	ESD Immunity Level
IEC61000-4-2 (Contact discharge)	±30 kV

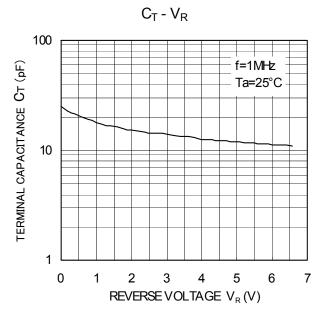
Criterion: No damage to device elements

### Marking Equivalent Circuit (top view)









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