Unit: mm

TOSHIBA Diodes for Protecting against ESD Epitaxial Planar Type

# DF2S16CT

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.

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

Characteristic	Symbol	Rating	Unit
Power dissipation	P*	150*	mW
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	-55 to 150	°C

\*: 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.

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).

# CST2 JEDEC — JEITA — TOSHIBA 1-1P1A

Weight: 0.7 mg (typ.)

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

Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Zener voltage	$V_{Z}$	_	I <sub>Z</sub> = 5 mA	15.3	_	17.1	V
Dynamic impedance	Z <sub>Z</sub>	_	I <sub>Z</sub> = 5 mA	-	_	35	Ω
Reverse current	I <sub>R</sub>	_	V <sub>R</sub> = 12 V	_	_	0.5	μΑ
Total capacitance	Ст	_	V <sub>R</sub> = 0 V, f =1 MHz	_	10	_	pF

### Marking

### **Equivalent Circuit (top view)**



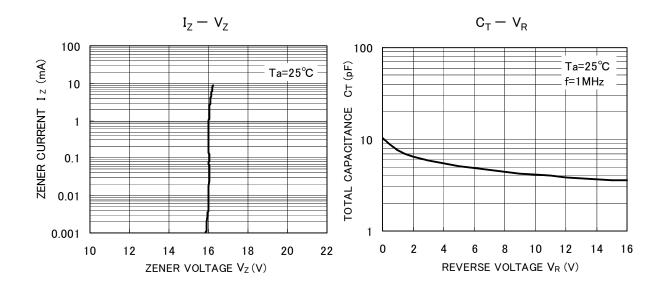


## **Guaranteed Level of ESD Immunity**

Test Condition	ESD Immunity Level		
IEC61000-4-2 (contact discharge)	± 12 kV		

Criterion: No damage to device elements

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