TOSHIBA Diodes for Protecting against ESD

# DF2S18CT

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	Р	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).

# Unit: mm WW 300HLY 0.6±0.05 0.38 +0.02 0.05±0.03 CST2 JEDEC — JEITA — TOSHIBA 1-1P1A

Weight: 0.7 mg (typ.)

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

Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	$V_{Z}$	I <sub>Z</sub> = 5 mA	17.84	_	18.17	V
Dynamic impedance	$Z_Z$	I <sub>Z</sub> = 5 mA	_	_	40	Ω
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 14 V	-	_	0.5	μΑ
Total capacitance (between Cathode and Anode)	C <sub>T</sub>	V <sub>R</sub> = 0 V, f = 1 MHz	_	10	_	pF

### Marking



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

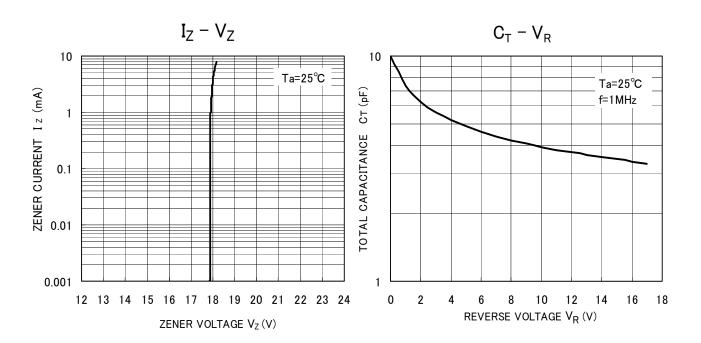


# **Guaranteed Level of ESD Immunity**

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

Criterion: No damage to device elements

2 2009-07-09



3 2009-07-09

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