TOSHIBA Diodes for Protecting against ESD

DF3A3.3FU

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.
- 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 (Ta = 25°C)

Characteristics	Symbol	Rating
Power dissipation	Р	100 mW
Junction temperature	Tj	125 °C
Storage temperature range	T _{stg}	−55 to 125 °C

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).

1. CATHODE1 2. CATHODE2 3. ANODE JEDEC JEITA TOSHIBA 1-2P1A

Weight: 0.006 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	Vz	I _Z = 5 mA	3.1	3.3	3.5	V
Dynamic impedance	Z_Z	$I_Z = 5 \text{ mA}$	_	_	130	Ω
Reverse current	IR	V _R = 1 V	_	_	20	μА
Terminal capacitance (between Cathode and Anode)	9т	V _R = 0, f = 1 MHz	_	115	١	pF

Guaranteed Level of ESD Immunity

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

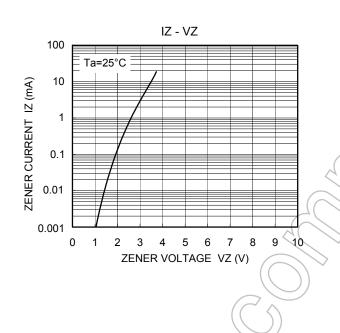
Criterion: No damage to device elements

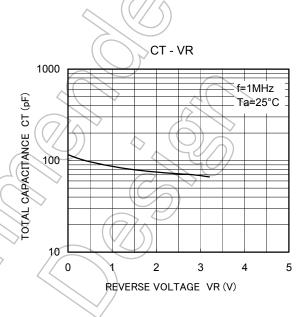
Marking

Equivalent Circuit (top view)









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