TOSHIBA Diodes For Protecting Against ESD

DF3A6.8F

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	Unit
Power dissipation	Р	150*	mW
Junction temperature	Tj	150	°C
Storage temperature range	T _{stg}	-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 2.5 + 0.5 2.5 - 0.3 4 + 0.25 1.5 - 0.15 4 + 0.25 1. Cathode 1 2. Cathode 2 S-MINI 3. Anode JEDEC JEITA TOSHIBA 1-3G1E

Weight: 12 mg (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	VZ	I _Z = 5 mA	6.4	6.8	7.2	V
Dynamic impedance	Z _Z	$I_Z = 5 \text{ mA}$	_	10	25	Ω
Reverse current	I _R	V _R = 5 V	_	_	0.5	μΑ
Terminal capacitance (between Cathode and Anode)	C _T	V _R = 0 V, f = 1 MHz	_	45	_	pF

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Guaranteed Level of ESD Immunity

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

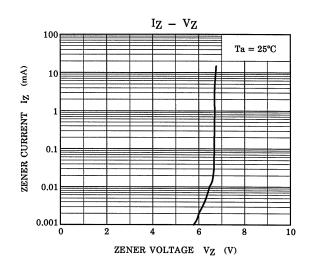
Judgment contents: No element destruction

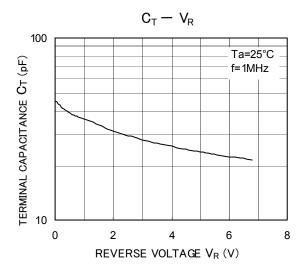
Marking

Equivalent Circuit (Top View)









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