

TOSHIBA Diodes for Protecting against ESD

DF6A6.8FU

Product for Use Only as Protection against Electrostatic Discharge (ESD)

Unit: mm

* 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 incorporation of four devices in an ultra-compact package reduces the number of parts and lowers assembly cost.

Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P	200	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to 150	°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.ANODE2 4.CATHODE3 5.CATHODE4 6.ANODE1
US6		
JEDEC		—
JEITA		—
TOSHIBA		1-2T1A

Weight: 6.8 mg (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Zener voltage	V _Z	I _Z = 5mA	6.4	6.8	7.2	V
Dynamic impedance	Z _Z	I _Z = 5mA	—	—	25	Ω
Reverse current	I _R	V _R = 5V	—	—	0.5	μA
Terminal capacitance (between Cathode and Anode)	C _T	V _R = 0, f = 1MHz	—	45	—	pF

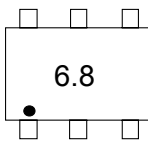
Guaranteed Level of ESD Immunity

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

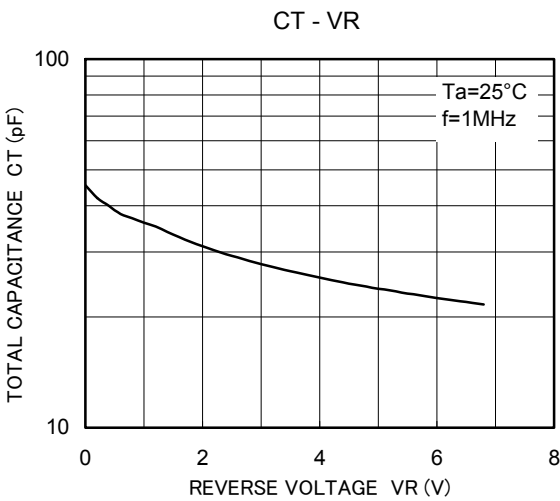
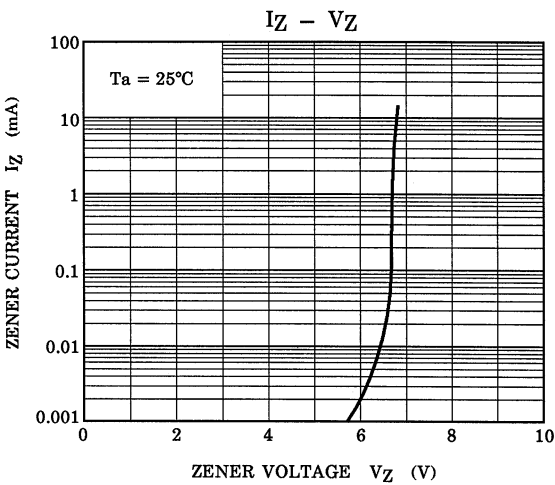
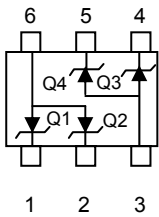
Criterion: No damage to device elements

Start of commercial production
2000-03

Marking



Equivalent Circuit (Top View)



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