

TOSHIBA Diodes for Protecting against ESD Epitaxial Planar Type

DF3A6.8LFV

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 mounting of two devices in an ultra-compact package enables a reduction in the number of parts and in the mounting cost.
- Low terminal capacitance: $C_T = 6.0$ pF (typ.)

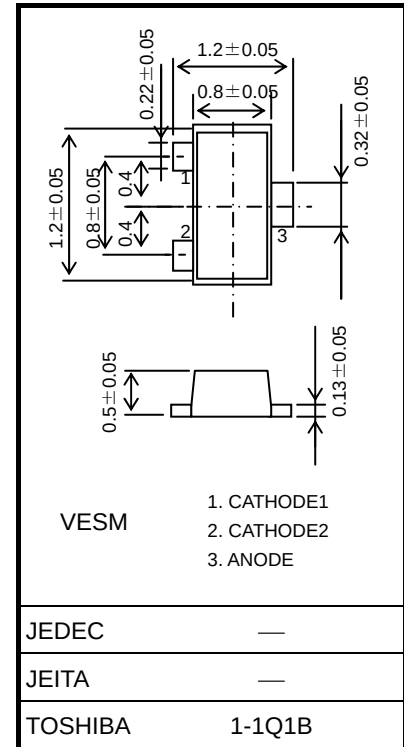
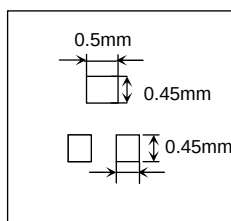
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Power dissipation	P	150*	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~150	$^\circ\text{C}$

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).

*: Mounted on an FR4 board (25.4 mm × 25.4 mm × 1.6 mm)



Weight: 1.5 mg (typ.)

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

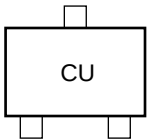
Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Zener voltage	V_Z	$I_Z = 5$ mA	6.5	6.8	7.1	V
Dynamic impedance	Z_Z	$I_Z = 5$ mA	—	—	50	Ω
Reverse current	I_R	$V_R = 5$ V	—	—	0.5	μA
Terminal capacitance (between cathode and anode)	C_T	$V_R = 0$ V, $f = 1$ MHz	—	6.0	—	pF

Guaranteed Level of ESD Immunity

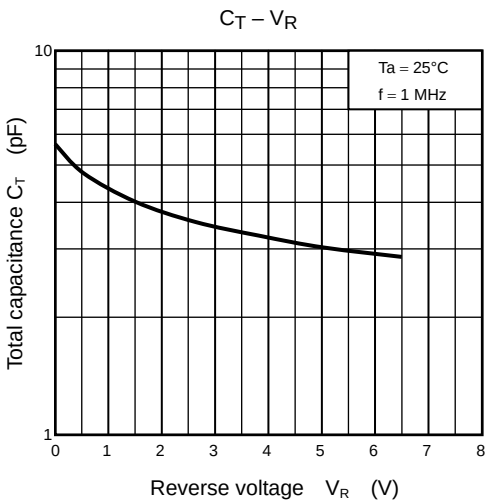
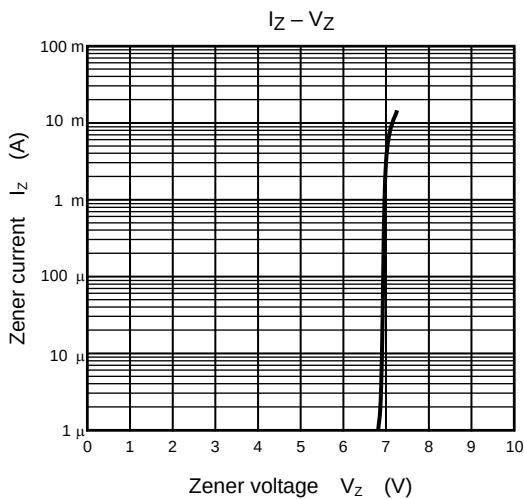
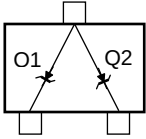
Test Condition	ESD Immunity Level
IEC61000-4-2 (Contact discharge)	$\pm 8\text{ kV}$

Criterion: No damage to device elements

Marking



Equivalent Circuit (top view)



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Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9