

TOSHIBA Diodes for Protecting Against ESD Epitaxial Planar Type

DF3A5.6LFE

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.

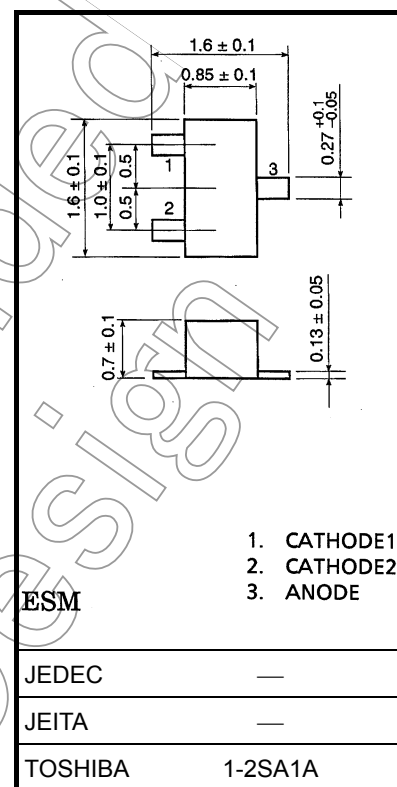
- Because two devices are mounted on an ultra compact package, it is possible to allow reducing the number of the parts and the mounting cost.
- Low terminal capacitance: $C_T = 8.0 \text{ pF}$ (typ.)

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

Characteristic	Symbol	Rating	Unit
Power dissipation	P	100	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~125	$^\circ\text{C}$

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).



Weight: 2.3 mg (typ.)

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

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Zener voltage	V_Z	—	$I_Z = 5\text{mA}$	5.3	5.6	6.0	V
Dynamic impedance	Z_Z	—	$I_Z = 5\text{mA}$	—	—	50	Ω
Reverse current	I_R	—	$V_R = 3.5\text{V}$	—	—	1.0	μA
Terminal capacitance (between Cathode and Anode)	C_T	—	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	—	8	—	pF

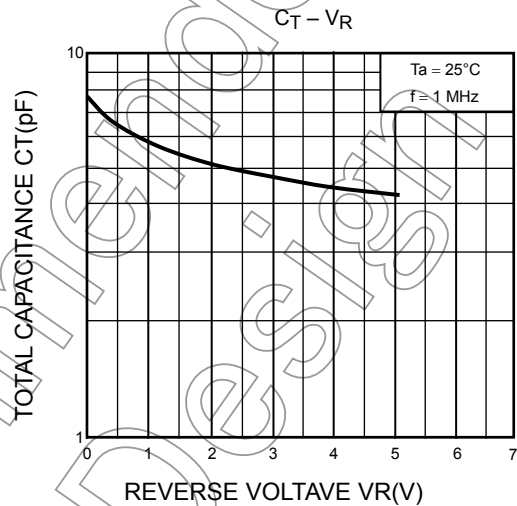
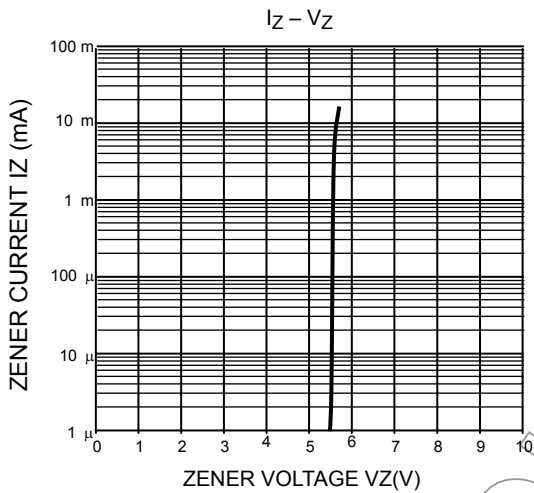
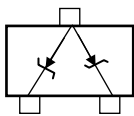
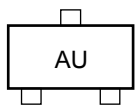
Guaranteed Level of ESD Immunity

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

Judgment contents: No element destruction

Marking

Equivalent Circuit
(top view)



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