

TOSHIBA Diodes For Protecting Against ESD Epitaxial Planar Type

DF3A8.2LFE

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.

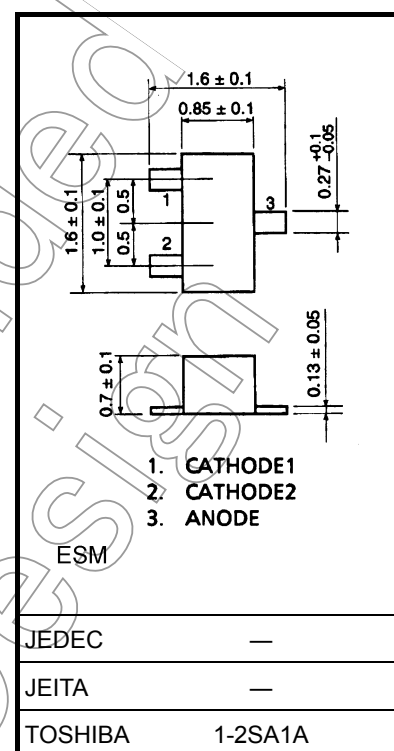
- Because two devices are mounted on an ultra compact package, it is possible to allow reducing the number of the parts and the mounting cost.
- Low terminal capacitance: $C_T = 5.0$ pF (typ.)

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

Characteristics	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: 0.0023 g (typ.)

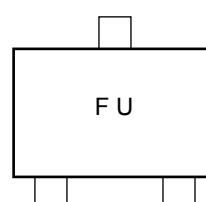
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Zener voltage	V_Z	$I_Z = 5$ mA	7.8	8.2	8.6	V
Dynamic impedance	Z_Z	$I_Z = 5$ mA	—	—	60	Ω
Knee dynamic impedance	Z_{ZK}	$I_Z = 0.5$ mA	—	—	100	Ω
Reverse current	I_R	$V_R = 5$ V	—	—	0.5	μA
Total capacitance	C_T	$V_R = 0$ V, $f = 1$ MHz	—	5.0	—	pF

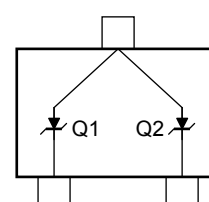
Guaranteed Level of ESD Immunity

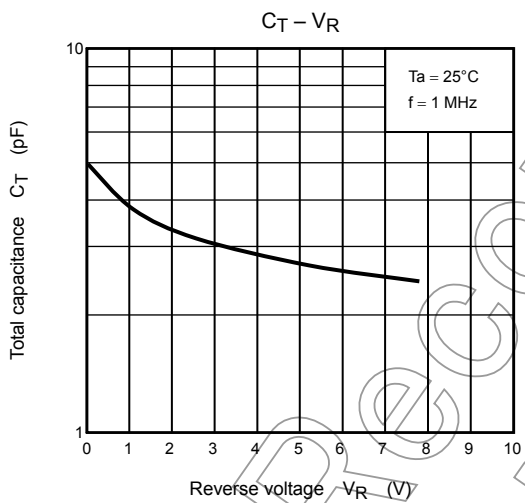
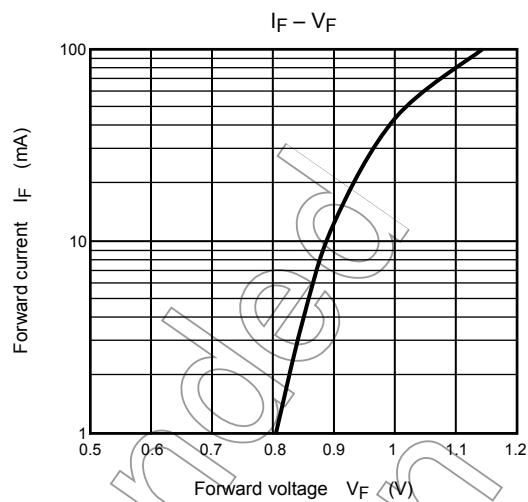
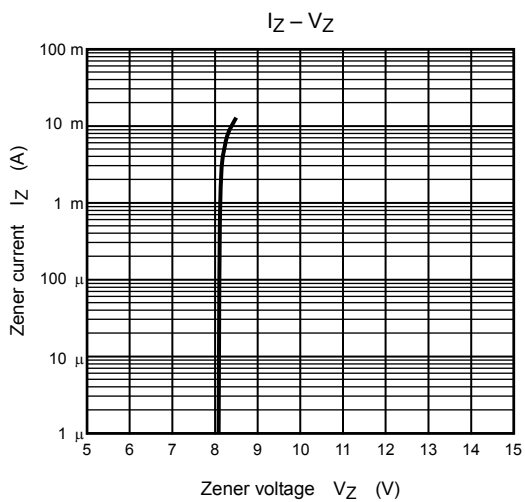
Test Condition	ESD Immunity Level
IEC61000-4-2 (contact discharge)	± 6 kV

Marking



Equivalent Circuit (top view)





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