

TOSHIBA Diodes for Protecting against ESD

DF3A6.8UFU

ESD Protection Diode

* This device is intended for electrostatic discharge (ESD) protection and should not be used for any other purpose, including the constant-voltage diode applications.

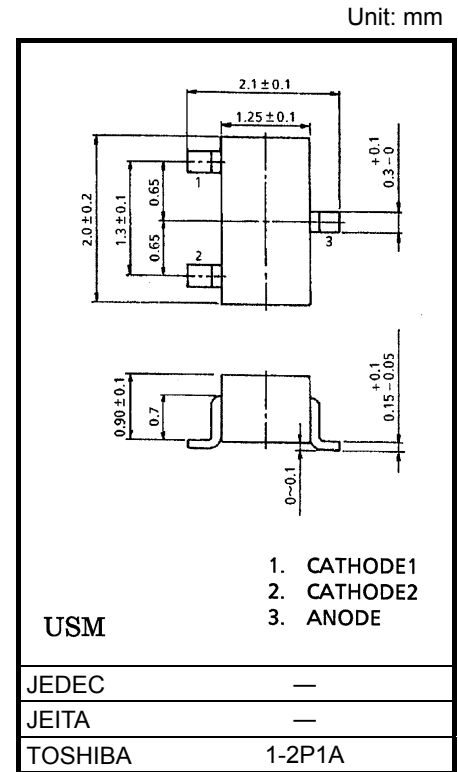
**This device is not a Zener diode.

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Power dissipation	P	100	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).

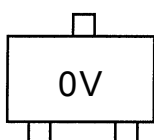


Weight: 6.0 mg (typ.)

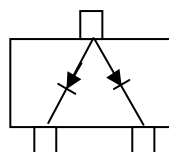
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse stand-off voltage	V _{RWM}	—	—	—	5.0	V
Reverse voltage	V _R	I _R = 1mA	5.3	6.8	—	V
Reverse current	I _R	V _{RWM} = 5 V	—	—	0.5	μA
Total capacitance (between Cathode and Anode)	C _T	V _R = 0 V, f = 1 MHz	—	—	2.5	pF
Forward stand-off voltage	V _F	I _F = 1mA	—	25	—	V

Marking



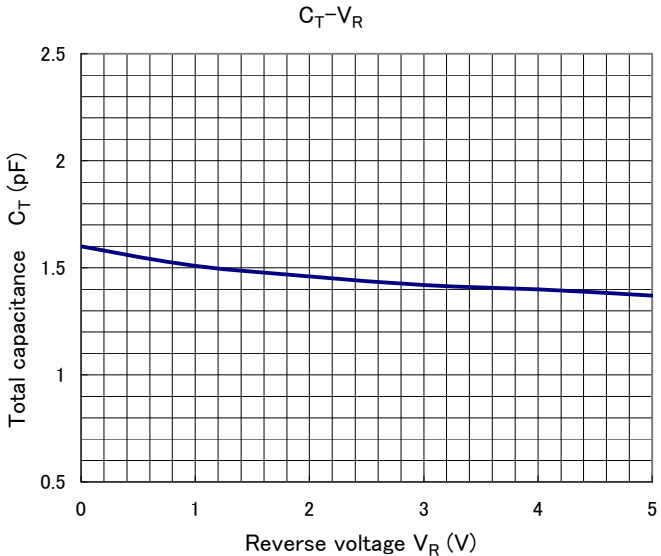
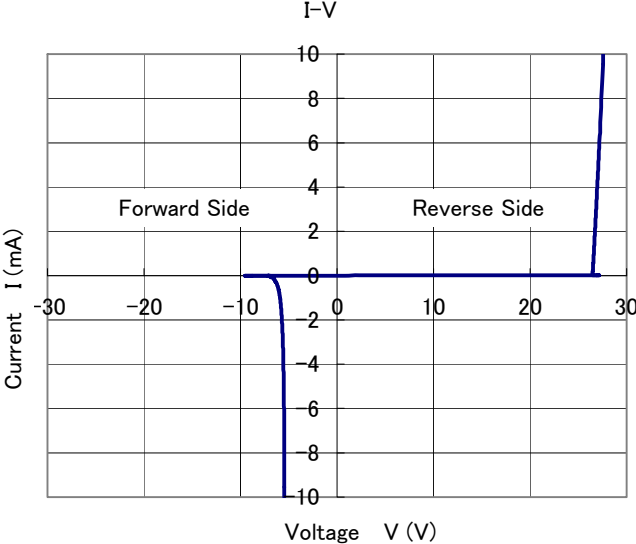
Equivalent Circuit (top view)



Guaranteed Level of ESD Immunity

Test Condition	ESD Immunity Level
IEC61000-4-2 (Contact discharge)	±8kV

Criterion: No damage to device elements



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