TOSHIBA Diodes for Protecting against ESD Epitaxial Planar Type

## DF2S6.8ASL

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

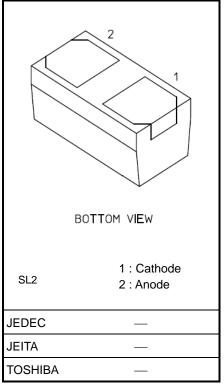
\* This product is for protection against electrostatic discharge (ESD) only and is not intended for any other usage, including without limitation, the constant voltage diode application.

### **Absolute Maximum Ratings (Ta = 25°C)**

Characteristic	Symbol	Rating	Unit
Electrostatic discharge voltage IEC61000-4-2 ( Contact ) IEC610004-2(Air)	V <sub>ESD</sub> (Note 1)	±30	kV
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C

Note1: according to IEC61000-4-2

Note2: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).



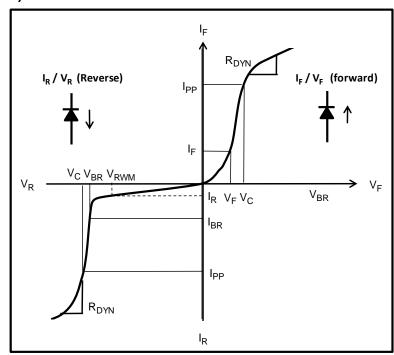
Weight: 0.2 mg (typ.)

### **Electrical Characteristics (Ta = 25°C)**

V<sub>RWM</sub>: Reverse working voltage maximum

V<sub>BR</sub>: Breakdown voltage
I<sub>BR</sub>: Breakdown current
I<sub>R</sub>: Reverse current
V<sub>C</sub>: Clamp voltage
I<sub>PP</sub>: Peak pulse current
R<sub>DYN</sub>: Dynamic resistance
I<sub>F</sub>: Forward current

V<sub>F</sub> : Forward voltage

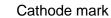


Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Working peak reverse voltage	$V_{RWM}$	_	_	_	5	V
Zener votage (Reverse breakdown voltage)	V <sub>Z</sub> (V <sub>BR</sub> )	$I_Z = 5mA$ $(I_{BR} = 5mA)$	6.4	6.8	7.2	V
Dynamic impedance	Z <sub>Z</sub>	$I_Z = 5mA$ $(I_{BR} 5 mA)$	_		30	Ω
Reverse current	I <sub>R</sub>	V <sub>RWM</sub> = 5V	_	_	0.5	μΑ
Total capacitance	Ct	V <sub>R</sub> = 0 V, f = 1 MHz (Note:1)	-	25	1	pF

Note1 : Guaranteed by design.

### **Equivalent Circuit (Top View)**

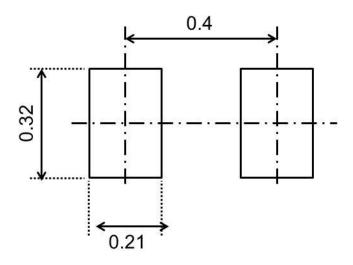




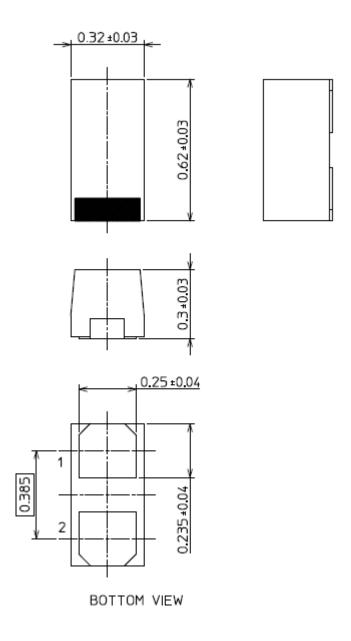




Land Pattern Dimensions for Reference Only (Unit: mm)



### Land Pattern Dimensions for Reference Only (Unit: mm)



Weight: 0.2 mg (typ.)

Package Name(s)			
TOSHIBA:			
Nickname:	SL2		

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