TOSHIBA Diodes for Protecting against ESD

DF3A5.6F

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

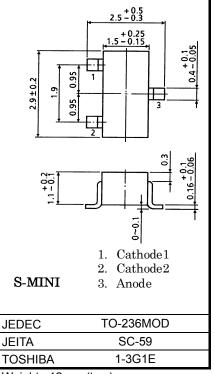
*This product is for protection against electrostatic discharge (ESD) only and is not intended for any other usage, including without limitation, the constant voltage diode application.

• The mounting of two devices on an ultra-compact package allows the number of parts and the mounting cost to be reduced.

Abusolute Maximum Ratings (Ta = 25°C)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|------------------|------------|------|
| Power dissipation | Р | 150 | mW |
| Junction temperature | Тј | 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.



Weight : 12 mg (typ.)

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).

Symbol Characteristic Test Condition Min Typ. Max Unit V Zener voltage V7 $I_7 = 5 \text{ mA}$ 56 60 53 40 Dynamic impedance Z7 $I_7 = 5 \text{ mA}$ _ _ Ω V_R =2.5 V 1.0 Reverse current I_R _ _ μΑ Terminal capacitance pF Ст 65 V_R = 0 V, f = 1 MHz (between Cathode and Anode)

Electrical Characteristics (Ta = 25°C)

Guaranteed Level of ESD Immunity

| Test Condition | ESD Immunity Level |
|-------------------------------------|--------------------|
| IEC61000-4-2 (Contact discharge) | \pm 30 kV |

Criterion: No damage to device elements



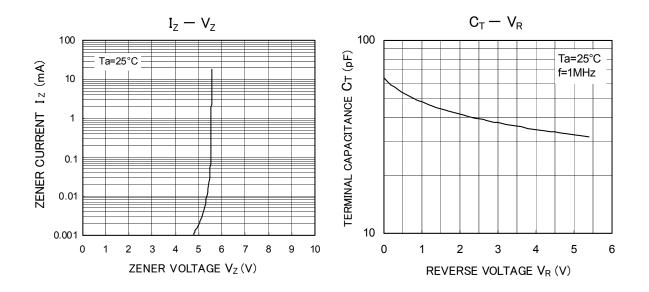
Marking

Equivalent Circuit (Top View)





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