TOSHIBA Diodes for Protecting against ESD Epitaxial Planar Type

DF7A6.8CFU

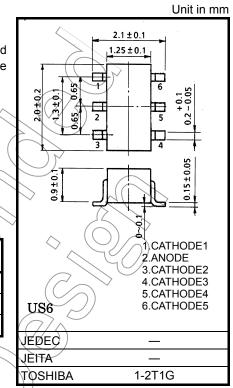
Product for Use Only as Protection against Electrostatic Discharge (ESD).

*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 five devices on an ultra-compact package allows the number of parts and the mounting cost to be reduced.
- Low Terminal capacitance (between Cathode and Anode):
 C_T = 26 pF (typ.)

Absolute Maximum Ratings (Ta = 25°C)

| Characteristic | Symbol | Rating |
|---------------------------|------------------|--------------|
| Power dissipation | Р | 200 mW |
| Junction temperature | Тj | 150 °C |
| Storage temperature range | T _{stg} | 55 to 150 °C |



Weight: 6.8 mg (typ.)

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).

Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Circuit | Test Condition | Min | Тур. | Max | Unit |
|---|--------|-----------------|---------------------------------|-----|------|-----|------|
| Zener voltage | < Vz | _ | I _Z = 5 mA | 6.4 | 6.8 | 7.2 | V |
| Dynamic impedance | ZZ | — | I _Z = 5 mA | | _ | 25 | Ω |
| Reverse current | | — | V _R = 5 V | | _ | 0.5 | μA |
| Terminal capacitance (between Cathode and Anode) | CT | _ | V _R = 0 V, f = 1 MHz | | 26 | _ | pF |

Marking



Equivalent Circuit (Top View)

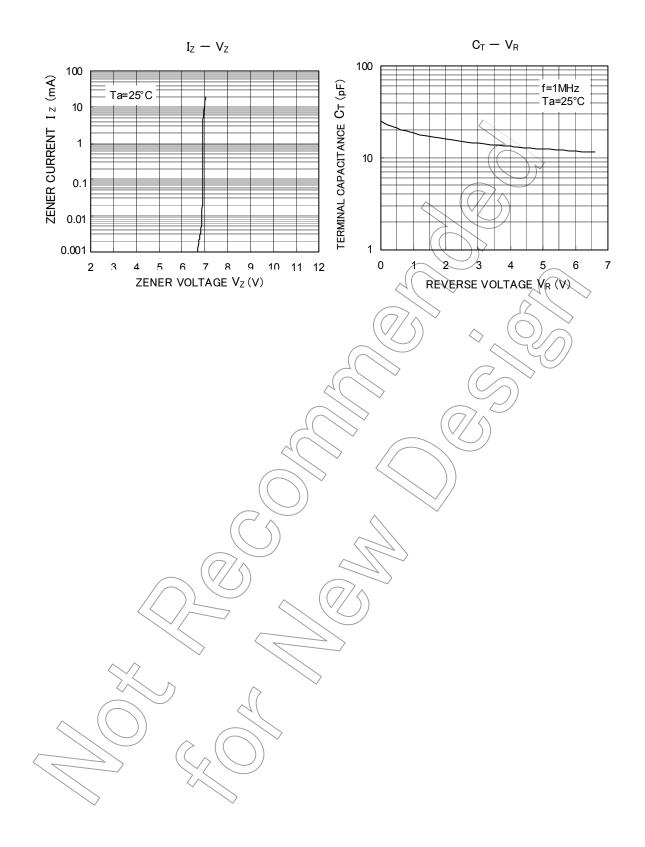


Guaranteed Level of ESD Immunity

| Test Condition | ESD Immunity Level |
|-------------------------------------|--------------------|
| IEC61000-4-2 (Contact discharge) | \pm 25 kV |

Criterion: No damage to device elements

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