TOSHIBA Diodes for Protecting against ESD

DF3A3.6FV

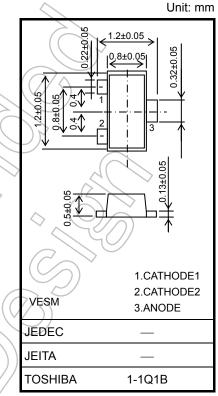
Product for Use Only as Protection against Electrostatic Discharge (ESD)

- * 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 reduces the number of parts and lowers assembly cost.

Absolute Maximum Ratings (Ta = 25°C)

| Characteristics | Symbol | Rating |
|---------------------------|------------------|---------------|
| Power dissipation | P* | 150 mW |
| Junction temperature | Tj | 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.

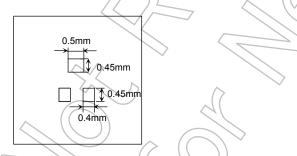


Weight: 0.0015 g (typ.)

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).

*: Mounted on FR4 board (25.4 mm × 25.4 mm × 1.6 mmt)



Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Тур. | Max | Unit |
|---|----------------|------------------------------|-----|------|-----|------|
| Zener voltage | VZ | $I_Z = 5 \text{ mA}$ | 3.4 | 3.6 | 3.8 | V |
| Dynamic impedance | ZZ | I _Z = 5 mA | _ | _ | 130 | Ω |
| Reverse current | I _R | V _R = 1.8 V | _ | _ | 100 | μA |
| Terminal capacitance (between Cathode and Anode) | CT | V _R = 0, f = 1MHz | _ | 110 | _ | pF |

Start of commercial production 2003-06

Guaranteed Level of ESD Immunity

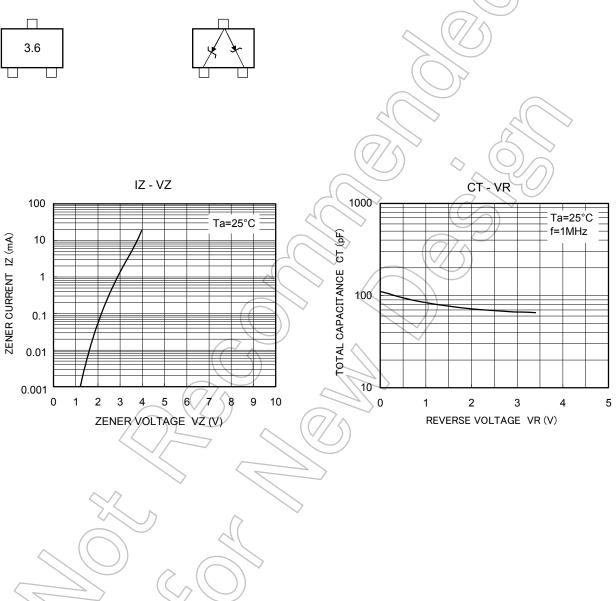
| Test Condition | ESD Immunity Level |
|-------------------------------------|--------------------|
| IEC61000-4-2 (Contact discharge) | \pm 30 kV |

Criterion: No damage to device elements



Equivalent Circuit (top view)





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