TOSHIBA Diodes for Protecting against ESD

# **DF5A6.8F**

# 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 four devices on an ultra-compact package allows the number of parts and the mounting cost to be reduced.

# Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	Р	200	MW
Junction temperature	Tj	125	°C
Storage temperature range	T <sub>stg</sub>	-55 to 125	°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).

# Unit: mm +0.2 2.8-0.3 +0.2 1.6-0.1 1.CATHODE 1 2. ANODE 3.CATHODE2 4.CATHODE3 SMV 5.CATHODE4 JEDEC — JEITA — TOSHIBA 1-3H1A

Weight: 0.014 g (typ.)

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

Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	VZ	I <sub>Z</sub> = 5 mA	6.4	6.8	7.2	V
Dynamic impedance	Z <sub>Z</sub>	I <sub>Z</sub> = 5 mA	_	10	25	Ω
Knee dynamic impedance	Z <sub>ZK</sub>	I <sub>Z</sub> = 0.5 mA	_	30	_	Ω
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 5 V	_	_	0.5	μΑ
Terminal capacitance (between Cathode and Anode)	C <sub>T</sub>	V <sub>R</sub> = 0, f = 1 MHz	_	45	_	pF

# **Guaranteed Level of ESD Immunity**

Test Condition	ESD Immunity Level
IEC61000-4-2 (Contact discharge)	± 30kV

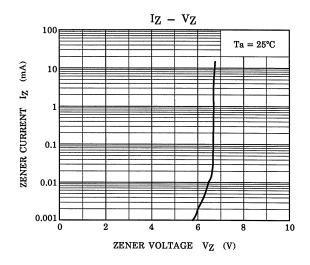
Criterion: No damage to device elements

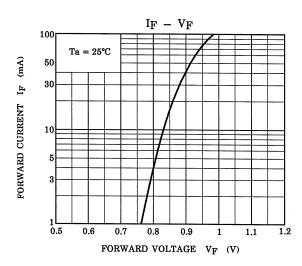
# Marking

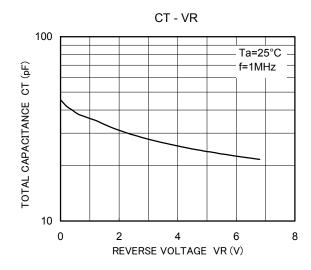
# **Equivalent Circuit (Top View)**











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### Как с нами связаться

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