TOSHIBA Diodes For Protecting Against ESD Epitaxial Planar Type

# **DF3A6.8LFU**

**Diodes for Protecting Against ESD** 

- Because two devices are mounted on an ultra compact package, it is possible to allow reducing the number of the parts and the mounting cost.
- Zener voltage correspond to E24 Series.
- Low total capacitance:  $C_T = 6.0 \text{ pF}$  (typ.)



#### Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Power dissipation	Р	200	mW
Junction temperature	Тј	125	°C
Storage temperature range	T <sub>stg</sub>	-55 to 125	°C

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

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Zener voltage	Vz	$I_Z = 5 \text{ mA}$	6.5	6.8	7.1	V
Dynamic impedance	ZZ	$I_Z = 5 \text{ mA}$	—	—	50	Ω
Knee dynamic impedance	Z <sub>ZK</sub>	I <sub>Z</sub> = 0.5 mA	—	—	100	Ω
Reverse current	I <sub>R</sub>	$V_R = 5 V$	—	—	0.5	μA
Total capacitance	CT	V <sub>R</sub> = 0 V, f = 1 MHz		6.0		pF

#### **Guaranteed Level of ESD Immunity**

#### Marking

## Equivalent Circuit (top view)

_					
	Test Condition	ESD Immunity Level			СІ
	IEC61000-4-2	+0 k)/			•
	(contact discharge)	±ο KV		Н	

_	
<b>₽</b> Q1	Q2 🕈
	961001FAA1

 TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.

• The information contained herein is subject to change without notice.

### **TOSHIBA**





