TOSHIBA Diodes for Protecting against ESD Epitaxial Planar Type

## **DF2S16FS**

### Diodes for Protecting against ESD

- Two-terminal ultra-small package suitable for mounting on small surfaces.
- Zener voltage corresponds to the E24 series.
- Low total capacitance: C<sub>T</sub> = 10 pF (typ.)
- Lead (Pb) free

#### Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P*	150	mW
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C

<sup>\*</sup> Mounted on a glass-epoxy circuit board of 20  $\times$  20 mm, pad dimensions of 4  $\times$  4 mm.

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Weight: 0.0006 g (typ.)

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

Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Zener voltage	VZ	_	I <sub>Z</sub> = 5 mA	15.3	16.0	17.1	V
Dynamic impedance	Z <sub>Z</sub>	_	I <sub>Z</sub> = 5 mA	_	_	35	Ω
Reverse current	I <sub>R</sub>	_	V <sub>R</sub> = 12 V	_	_	0.5	μA
Total capacitance	C <sub>T</sub>	_	V <sub>R</sub> = 0 V, f =1 MHz	_	10	_	pF

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

Test Condition	ESD Immunity Level		
IEC61000-4-2 (contact discharge)	± 12 kV		

Criterion: No damage to device elements

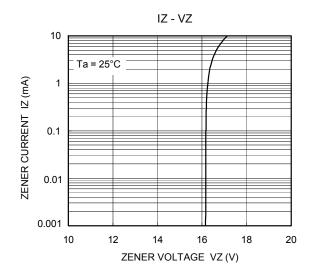
#### Marking

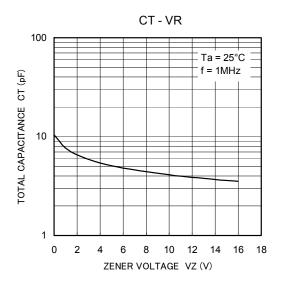
#### **Equivalent Circuit (Top View)**

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