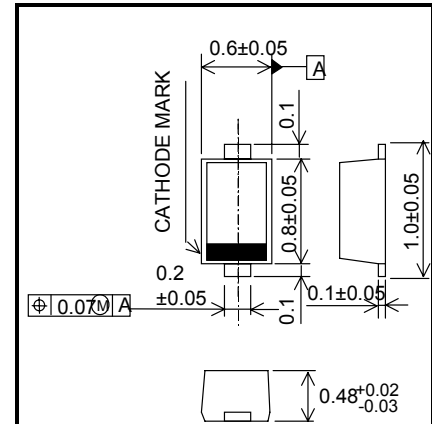


# DF2S12FS

## Diodes for Protecting against ESD

- 2-terminal ultra small package suitable for mounting on small space.
- Zener voltage corresponds to E24 series.
- Low total capacitance:  $C_T = 15 \text{ pF}$  (typ.)

Unit in mm



### Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	$P^*$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55~150	°C

\* Mounted on a glass epoxy circuit board of 20 × 20 mm,  
pad dimension of 4 × 4 mm.

fSC

JEDEC	—
JEITA	—
TOSHIBA	1-1L1A

Weight: 0.0006 g(Typ.)

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

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Zener voltage	$V_Z$	—	$I_Z = 5 \text{ mA}$	11.4	12.0	12.6	V
Dynamic impedance	$Z_Z$	—	$I_Z = 5 \text{ mA}$	—	—	25	$\Omega$
Reverse current	$I_R$	—	$V_R = 9 \text{ V}$	—	—	0.05	$\mu\text{A}$
Total capacitance	$C_T$	—	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	—	15	—	pF

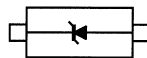
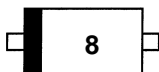
### Guaranteed Level of ESD Immunity

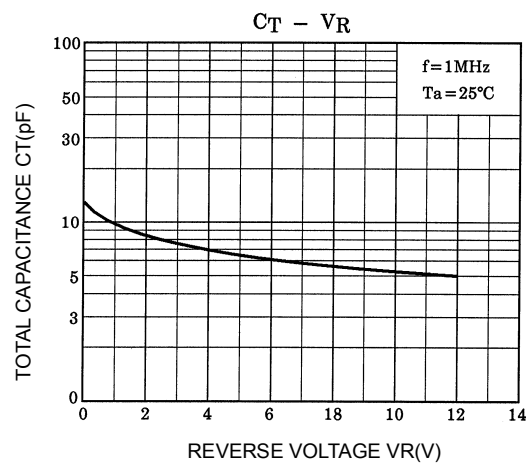
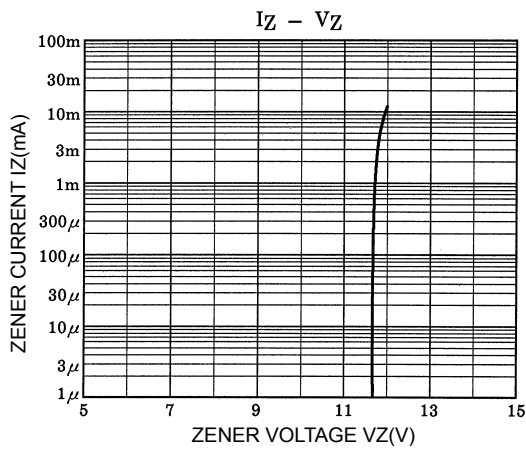
Test Condition	ESD Immunity Level
IEC61000-4-2 (Contact discharge)	$\pm 30 \text{ kV}$

Criterion: No damage to device elements

### Marking

### Equivalent Circuit (Top View)





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