



DESCRIPTION

The TVS4V8Z1 is available in DFN1610-2 package.

APPLICATION

- Power management
- Power supply protection

MECHANICAL CHARACTERISTICS

- DFN1610-2 package
- Flammability Rating: UL 94V-0

High temperature soldering: 260°C / 10 s (max.)

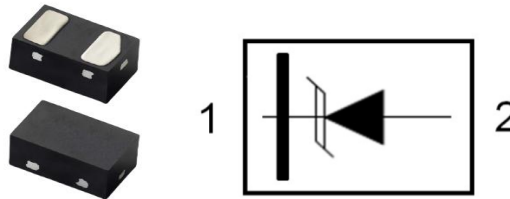
ORDERING INFORMATION

Package Type	Part Number
DFN1610-2	TVS4V8Z1
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURE

- Transient protection for high-speed data lines
- IEC 61000-4-2 (ESD) protection:
 - ±30 kV (Contact discharge)
 - ±30 kV (Air discharge)
- Peak pulse power: 1800 W (8/20 μs)
- Working voltage: 4.8 V
- Low clamping voltage
- Solid-state silicon technology
- Ultra-small package: 1.6 × 1.0 × 0.5 mm

PIN DESCRIPTION



PIN#	DESCRIPTION
1	Cathode
2	Anode

ABSOLUTE MAXIMUM RATINGS T_A = 25°C, unless otherwise noted.

P _{PP} , Peak Pulse Power (8/20μs)		1800W
V _{ESD} , ESD per IEC61000-4-2	Air	±30kV
	Contact	±30kV
T _{STG} , Storage Temperature Range		-55°C ~ +125°C
T _J , Junction Temperature		125°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



ELECTRICAL CHARACTERISTICS $T_A = 25^\circ\text{C}$, unless otherwise noted.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Working Voltage	V_{RWM}		-	-	4.8	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6.5	-	-	V
Reverse Leakage Current	I_R	$V_{RWM}=4.8\text{V}$	-	-	1.0	μA
Clamping Voltage	V_C	$I_{PP} = 10\text{A}, t_p = 8/20\mu\text{s}$	-	-	8.5	V
		$I_{PP} = 120\text{A}, t_p = 8/20\mu\text{s}$	-	-	15	
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	650	700	pF

ELECTRICAL CHARACTERISTICS CURVES

Fig 1. 8/20 μs Waveform per IEC6100-4-5

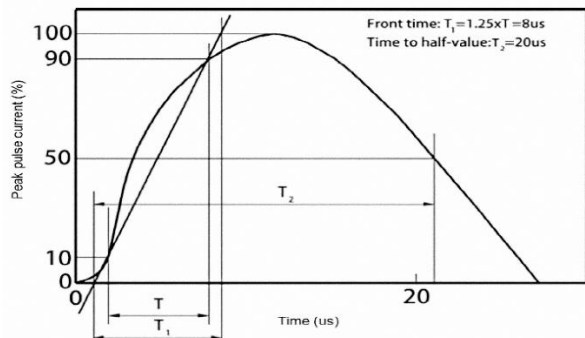


Fig 2. Contact Discharge Current Waveform per IEC6100-4-5

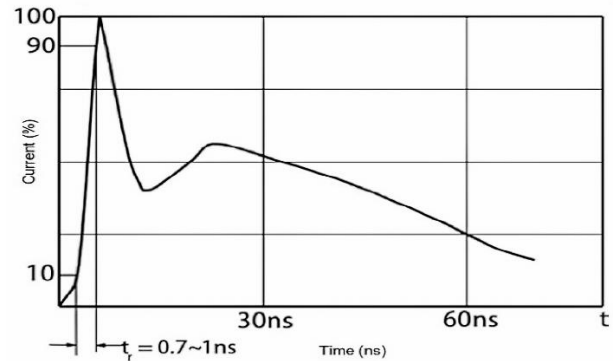


Fig 3. Voltage vs Capacitance

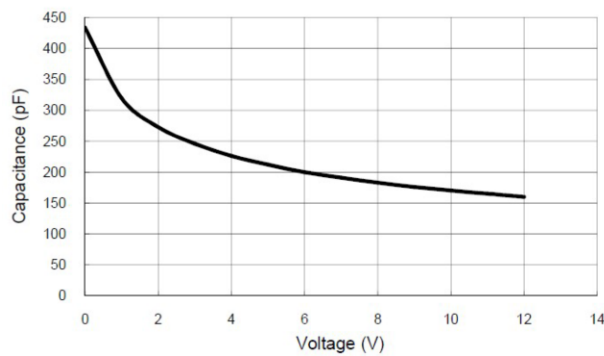
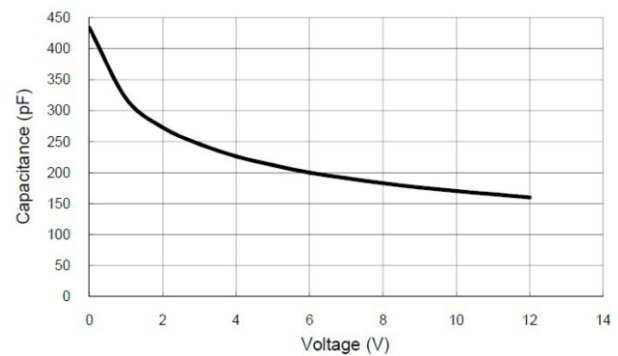


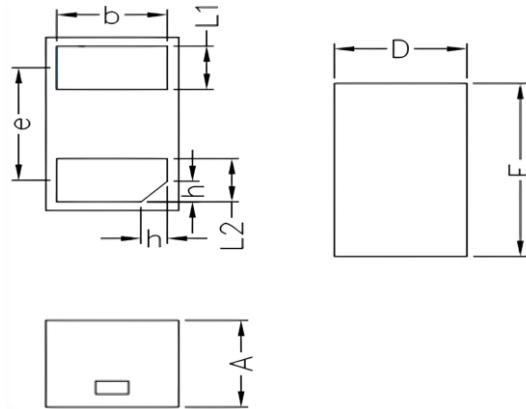
Fig 4. Clamping Voltage vs Peak Pulse Current





PACKAGE INFORMATION

Dimension in DFN1610-2 Package (Unit: mm)



SYMBOL	MIN	MAX
A	0.45	0.55
b	0.75	0.85
D	0.95	1.05
E	1.55	1.65
e	1.09BSC	
h	0.15	0.25
L1	0.35	0.45
L2	0.35	0.45



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