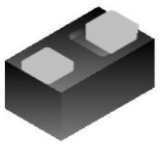
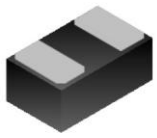
ESD Protection –ESD24VD8

Description

The ESD24VD8 in a SOD-882 package and will protect one unidirectional line. These devices are designed to replace multilayer varistors (MLVs) in portable applications such as cell phones, notebook computers, and PDA’s. They offer superior electrical characteristics such as lower clamping voltage and no device degradation when compared to MLVs, The ESD24VD8 are designed to protect sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD),and other voltage induced transient events.



FBP-02C-1.0x0.6x0.5-0.62

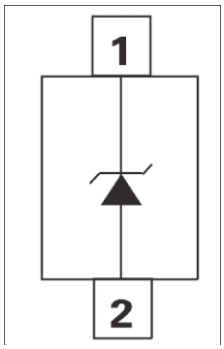


DFN-2-1.0x0.6x0.50-0.65

Feature

- Case : SOD882 package
- Low clamping voltage
- Low Leakage
- Small Body Outline Dimensions:0.039″ x 0.024″(1.00 mm x 0.60 mm)
- Response Time is Typically < 1.0 ns
- IEC61000 4 2 Level 4 ESD Protection

Schematic & PIN Configuration



Applications

- External Storage
- Set Top Boxes, Game Consoles
- HDMI, Video Port, eSATA
- MHL/MIPI/MDDI

Absolute Maximum Ratings

Parameter	Symbol	Value	Units
IEC61000-4-2 (Contact)	V_{ESD}	8	kV
IEC61000-4-2 (Air)	V_{ESD}	15	kV
Lead Soldering Temperature	T_L	260 (10 sec)	° C
Operating Temperature	T_J	-50 to 125	° C
Storage Temperature Range	T_{STG}	-50 to 150	° C

Electrical Characteristics (T =25° C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				24	V
Reverse Breakdown Voltage	V_{BR}	It = 1mA	26.7		27.5	V
Reverse Leakage Current	I_R	V_R =V_{RWM}			1	μ A
Clamping Voltage	V_C	I_{PP}=1A, t_P = 8/20μs		36		V
Peak pulse Current	I_{PP}	t_P = 8/20μs			3	A
Junction Capacitance	C_J	V_R=0V, f = 1MHz		25		pF

Rating & Characteristic Curves

Figure 1 Power Derating Curve

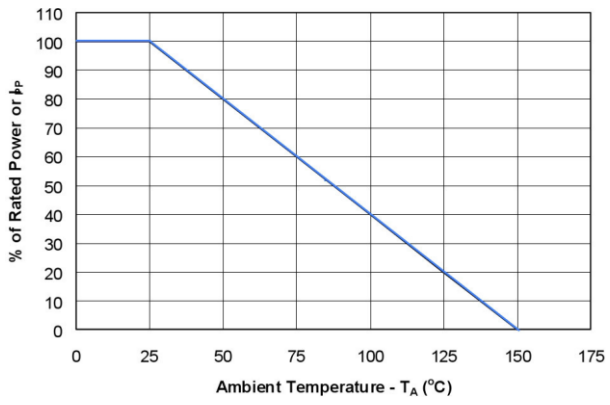


Figure 2- Pulse Waveform

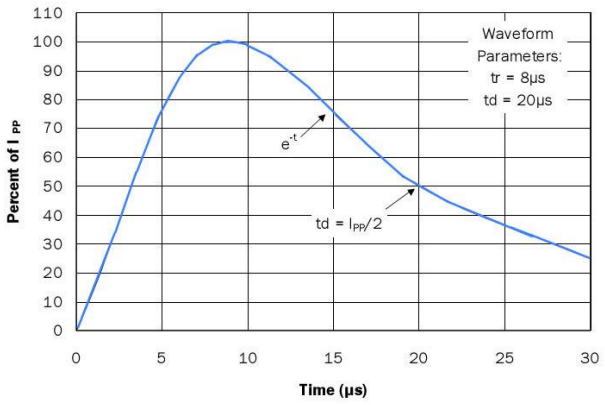
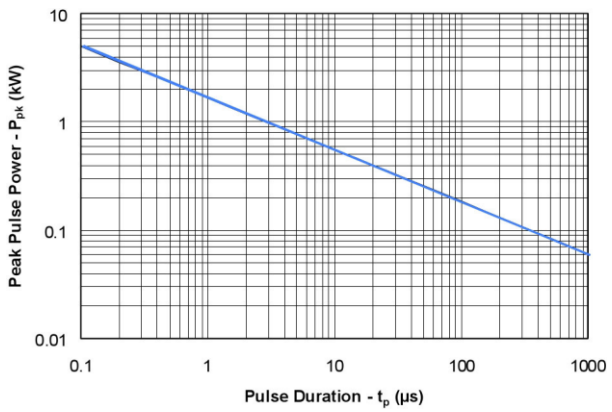
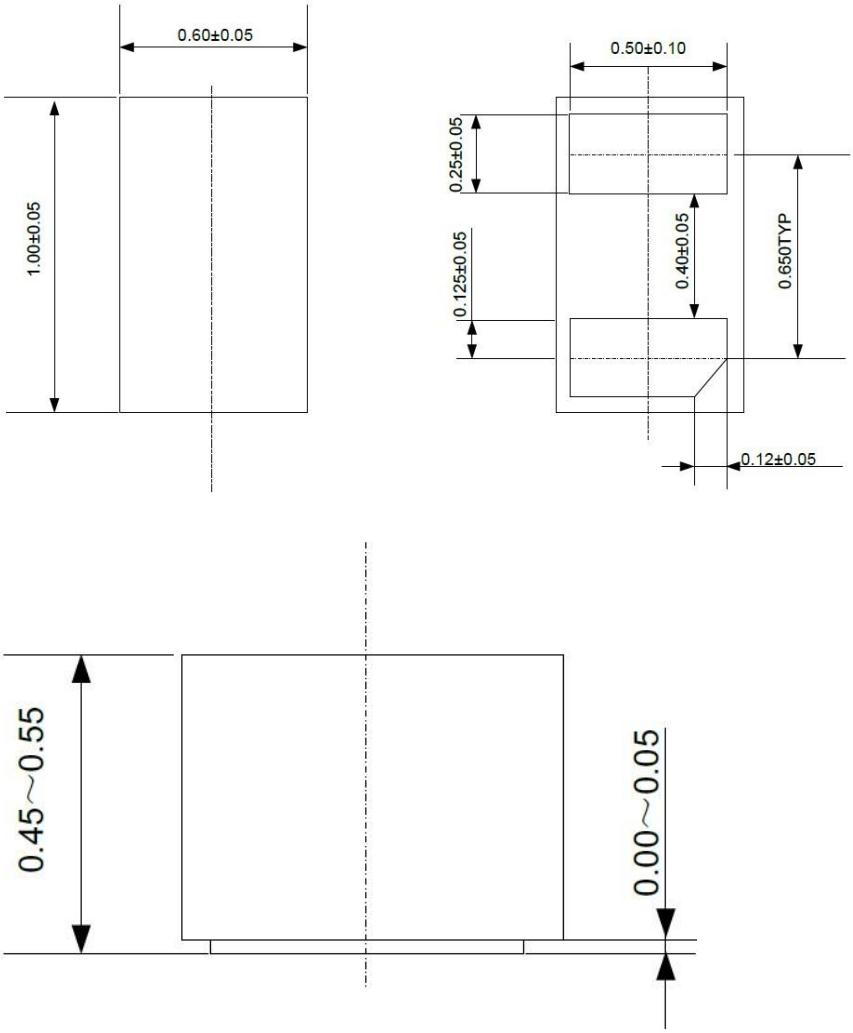


Figure 3-Peak Power Derating Curve



PACKAGE OUTLINE DIMENSIONS in millimeters :**SOD882**

DFN-2-1.0x0.6x0.50--0.65



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.