HESDBM24VD3
ESD PROTECTION DIODE

Discription

The HESDBM24VD3 protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events.

Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

It gives designer the flexibility to protect one unidirectional line in applications where arrays are not practical.

SOD-323
(SC-76)

Features

- ★ Small Body Outline Dimensions
- ★ 250 Watts peak pulse power (tp = 8/20μs)
- ★ Transient protection for data lines to
  IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lightning) 24A (8/20μs)
- ★ Small package for use in portable electronics
- ★ Suitable replacement for MLV's in ESD protection applications
- ★ Protects one I/O or power line
- ★ Low clamping voltage
- ★ Working voltages: 24V
- ★ Low leakage current
- ★ Solid-state silicon-avalanche technology
- ★ We declare that the material of product compliance with RoHS requirements.

Circuit Diagram

Orderingin formation

Product ID	Pack	Qty(PCS)
HESDBM24VD3	SOD-323(SC-76)	3000

Absolute Ratings(Tamb = 25°C)

Symbol	Parameter	Value	Units
P_{PK}	Peak Pulse Power (t_p = 8/20μs)	250	W
V_{ESD}	ESD Voltage(HBM Waveform per IEC 61000-4-2)	30	kV
T_L	Maximum lead temperature for soldering during 10s	260	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_J	Maximum junction temperature	-55 to +125	°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Device	V_{RWM} (V)	I_R(uA) @ V_{RWM}=5V	V_{BR} (V)@ I_t=1mA	V_C (V) @ I_{PP}=5A t_p=8/20μs	I_{PP} (A) t_p=8/20μs	C (pF)
	Max	Max	Min	Max	Max	Typ
HESDBM24VD3	24.0	1.0	26	50	6	25

Typical Characteristics

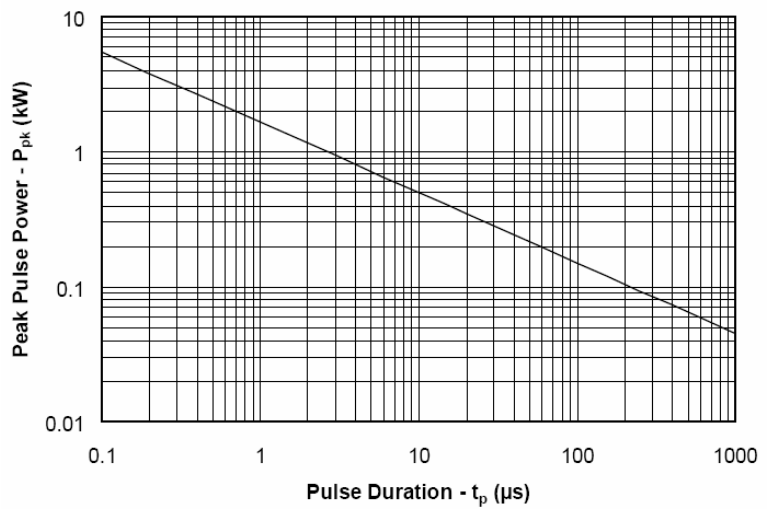


Fig.1 Non-Repetitive Peak Pulse Power vs. Pulse Time

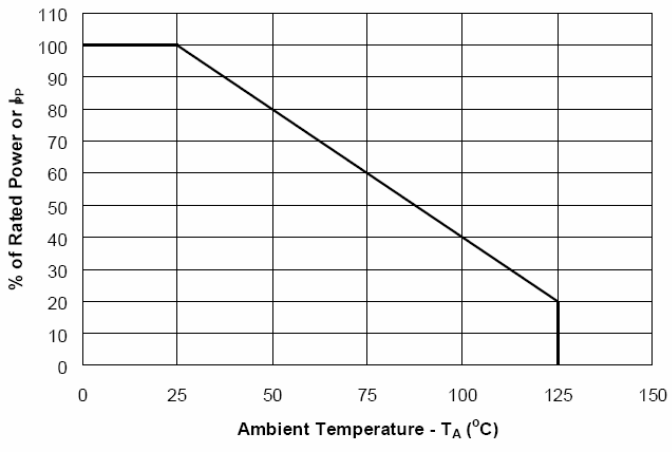


Fig.2 Power Derating Curve

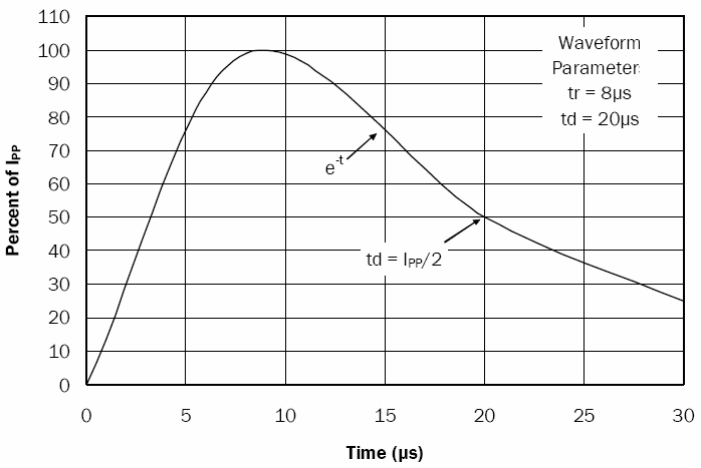
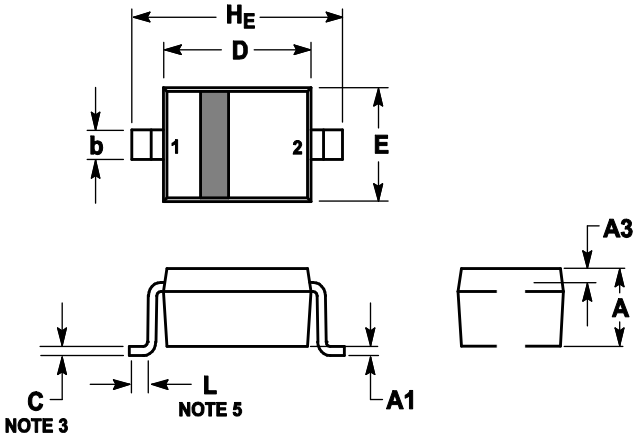


Fig.3 Waveform

Outline And Dimensions

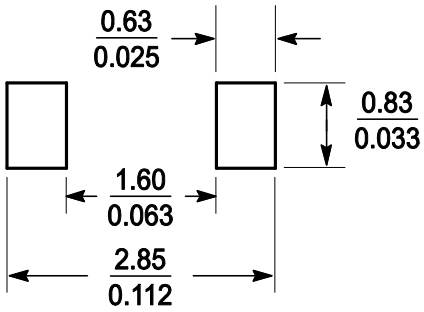


Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.8	0.9	1	0.031	0.035	0.04
A1	0	0.05	0.1	0	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.4	0.01	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.6	1.7	1.8	0.062	0.066	0.07
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H_E	2.3	2.5	2.7	0.09	0.098	0.105

Soledering Footprint



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