

TVS Diodes

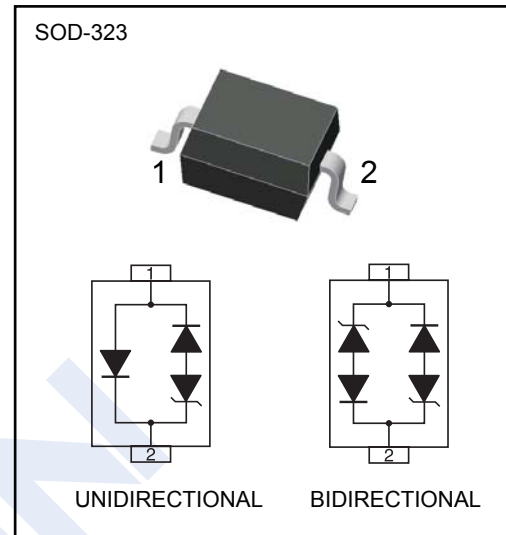
SD03 ~ SD24C

■ Features

- 350 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- Unidirectional & Bidirectional Configurations
- Replacement for MLV (0805)
- Protects One Power or I/O Port
- ESD Protection > 40 kilovolts
- Low Clamping Voltage
- Available in Multiple Voltage Types Ranging from 3V to 24V
- Ultra Low Capacitance: 3pF Typical

■ IEC COMPATIBILITY (EN61000-4)

- 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- 61000-4-4 (EFT): 40A - 5/50ns
- 61000-4-5 (Surge): 12A, 8/20 μs
- Level 1(Line-Ground) & Level 2(Line-Line)



■ Absolute Maximum Ratings @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu s$) - See Figure 1	PPP	350	W
Operating Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	

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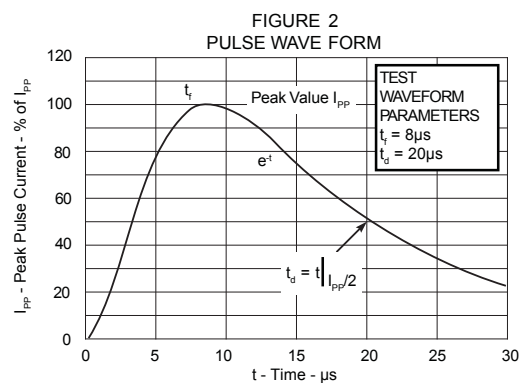
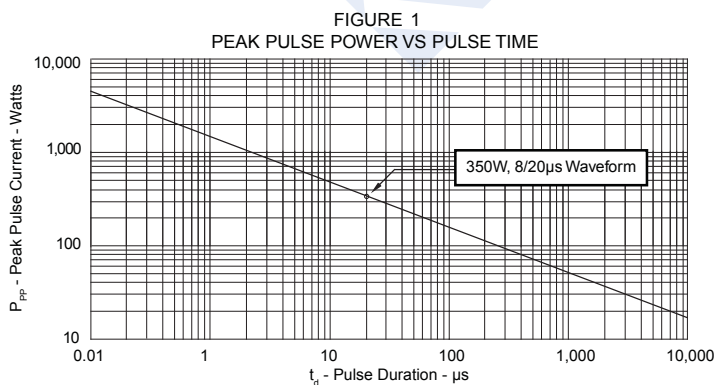
■ Electrical Characteristics Per Line @ 25°C Unless Otherwise Specified

PART NUMBER (See Note 1 & Note 2)	DEVICE MARKING	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
			@ 1mA $V_{(BR)}$ VOLTS	@ $I_p = 1A$ V_c VOLTS	@8/20 μ s $V_c @ I_{PP}$	@ V_{WM} I_D μA	@0V, 1 MHz C pF
SD03	3	3.3	4.0	7.0	19.0V @ 20.0A	5	3
SD03C	3C	3.3	4.0	7.0	19.0V @ 20.0A	5	3
SD05	5	5.0	6.0	9.8	18.3V @ 17.0A	5	3
SD05C	5C	5.0	6.0	9.8	18.3V @ 17.0A	5	3
SD08	8	8.0	8.5	13.4	18.5V @ 17.0A	2	3
SD08C	8C	8.0	8.5	13.4	18.5V @ 17.0A	2	3
SD12	2	12.0	13.3	19.0	28.6V @ 11.0A	1	3
SD12C	2C	12.0	13.3	19.0	28.6V @ 11.0A	1	3
SD15	6	15.0	16.7	24.0	31.8V @ 10.0A	1	3
SD15C	6C	15.0	16.7	24.0	31.8V @ 10.0A	1	3
SD18	1	18.0	20.0	29.0	45.0V @ 8.0A	1	3
SD18C	1C	18.0	20.0	29.0	45.0V @ 8.0A	1	3
SD24	4	24.0	26.7	43.0	56.0V @ 6.0A	1	3
SD24C	4C	24.0	26.7	43.0	56.0V @ 6.0A	1	3

Note 1: Part numbers with an additional "C" suffix are bidirectional devices, i.e., SD05C.

Note 2: For Bidirectional Devices Only: Electrical characteristics apply in both directions.

■ Typical Characteristics



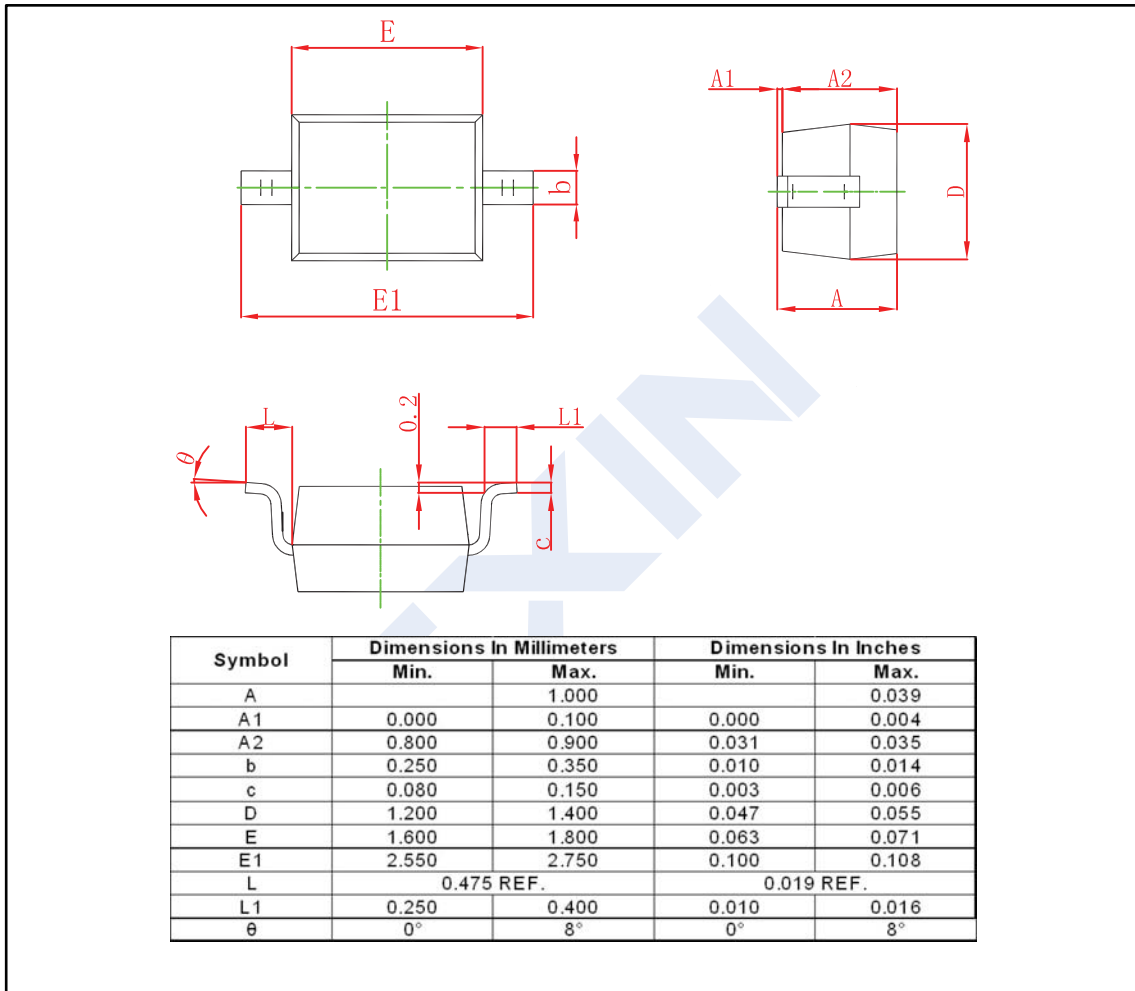
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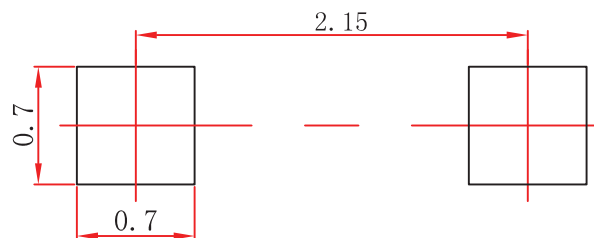
■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SOD-323



■ The Recommended Mounting Pad Size



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.