

ESD Protection Diodes

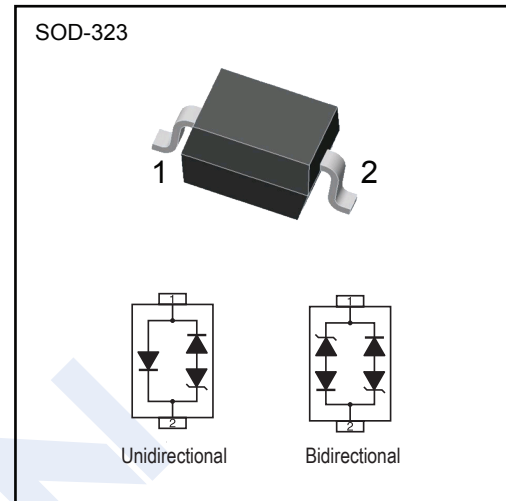
1KE3F Series

■ Features

- 350 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- Bidirectional Configurations
- Replacement for MLV (0805)
- Protects One Power or I/O Port
- ESD Protection > 40 kilovolts
- Low Clamping Voltage
- 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	

ESD Protection Diodes

1KE3F Series

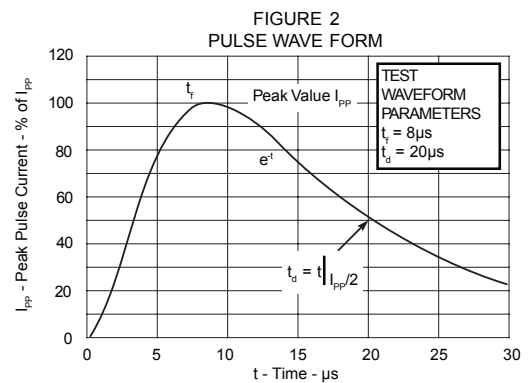
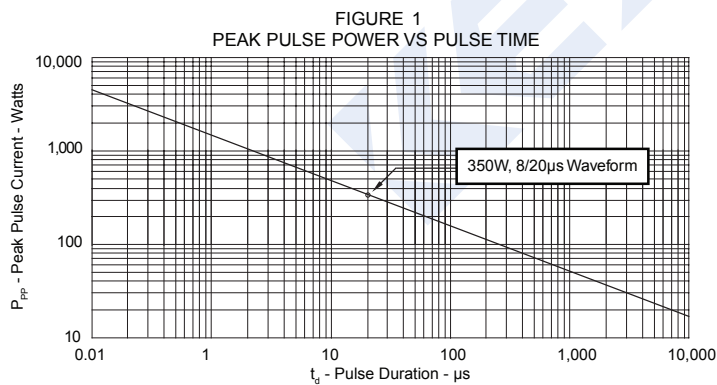
■ Electrical Characteristics Per Line @ 25°C Unless Otherwise Specified

Part Number (See Note 1 & Note 2)	Device Marking	Rated Stand-Off Voltage	Minimum Breakdown Voltage	Maximum Clamping Voltage (See Fig. 2)	Maximum Clamping Voltage (See Fig. 2)	Maximum Leakage Current	Typical Capacitance
		V_{WM} Volts	@ 1mA $V_{(BR)}$ Volts	@ $I_p=1A$ V_c Volts	@ 8/20 μs $V_c @ I_{pp}$	@ V_{WM} I_D μA	@ 0V, 1MHz C pF
1KE3F03	CB	3.3	4.0	7.0	19.0V @ 20.0A	5	3
1KE3F03C	CC	3.3	4.0	7.0	19.0V @ 20.0A	5	3
1KE3F05	AB	5.0	6.0	9.8	18.3V @ 17.0A	5	3
1KE3F05C	AC	5.0	6.0	9.8	18.3V @ 17.0A	5	3
1KE3F08	BB	8.0	8.5	13.4	18.5V @ 17.0A	2	3
1KE3F08C	BC	8.0	8.5	13.4	18.5V @ 17.0A	2	3
1KE3F12	DB	12.0	13.3	19.0	28.6V @ 11.0A	1	3
1KE3F12C	DC	12.0	13.3	19.0	28.6V @ 11.0A	1	3

Note 1. Part numbers with an additional "C" suffix are bidirectional devices, i.e., 1KE3F05C.

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

■ Typical Characteristics



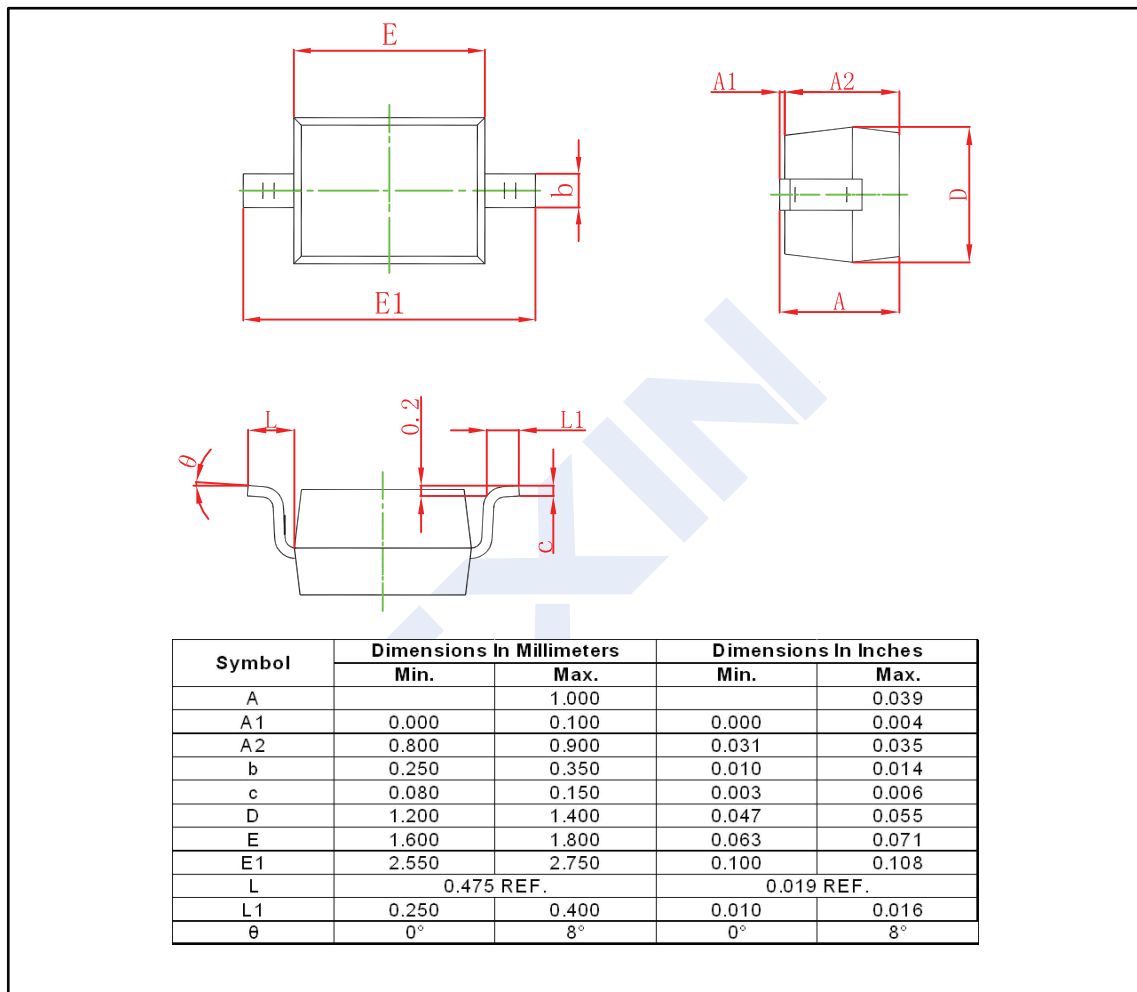
ESD Protection Diodes

1KE3F Series

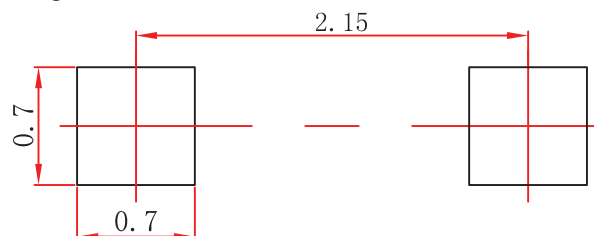
■ Package Outline Dimensions

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.