

# MURATA ESD Suppressors



## LXES SILICON SERIES

The Murata LXES series consist of ceramic and silicon based ESD Suppressors designed to meet the requirements of high-speed data transmission environments and comply with IEC 61000-4-2 Level 4 (8kV Contact and 15kV Air Discharge). Both versions feature a fast response time of <1ns, high suppression levels, high repetition durability, and low to ultra-low capacitance.

### Features:

- Operating temperature range: -40°C to +85°C
- Ultra low capacitors (0.05pF) for ceramic version
- Capacitance as low as 0.25pF for silicon version
- Bi-directional (see G8 below)
- IEC 61000-4-2 Level 4
- Fast response time (<1ns)

### Applications:

- High speed data lines
- HDMI 1.3
- USB 3.0, USB 2.0
- IEEE 1394b
- Computers and peripherals
- Cell Phones
- A/V Equipment, STB, DVD, HDTV
- Antenna Ports

### Electrical:

- Rated voltage: 15V
- Contact discharge: 8kV
- Air discharge: 15kV
- Trigger voltage: 350V typ.
- Clamping voltage: 40V typ.
- Leakage Current: <1μA typ.
- ESD Pulse Withstand: >1000 pulses

**A**

1,2: I/O OR GND

**B**

\* USB 3.0

**C**

No.	Terminal Name
(1)	Line-1
(2)	Line-2
(3)	GND
(4)	Line-3
(5)	Line-4
(6)	NC
(7)	NC
(8)	GND
(9)	NC
(10)	NC

**D**

No.	Terminal Name
1	I/O 1
2	GND
3	I/O 2
4	I/O 3
5	VDD
6	I/O 4

**E**

No.	Terminal Name
(1)	I/O 1
(2)	GND
(3)	I/O 2
(4)	I/O 3
(5)	VDD
(6)	I/O 4

**F**

No.	Terminal Name
(1)	I/O 1
(2)	I/O 2
(3)	I/O 3
(4)	I/O 4
(5)	I/O 5
(6)	I/O 6
(7)	GND
(8)	VDD

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Murata Part No.	Fig.	Number of Channels	Cap. (pF)	Operating Voltage	L x W (mm)	T (mm max.)	Price Each				Reel Qty	Price Per Piece
								1	100	500	1000		
81-LXES1UBBB1-008	LXES1UBBB1-008	A	1	0.5	6	1.0x0.6	0.6	.93	.53	.43	.342	3000	.223
* 81-LXES15AAA1-100	LXES15AAA1-100	B	1	0.05	15	1.0x0.5	0.33	.50	.38	.30	.28	10000	.22
81-LXES2TBBB4-028	LXES2TBBB4-028	C	4	0.5	5.5	2.5x1.0	0.6	1.25	.827	.677	.526	3000	.351
81-LXES2SBAA4-016	LXES2SBAA4-016	D	4	0.55	5.5	2.9x2.8	1.45	1.16	.709	.576	.452	3000	.298
81-LXES2SBB4-026	LXES2SBB4-026	D	4	1.0	5.5	2.9x2.8	1.45	.89	.511	.412	.327	3000	.213
81-LXES1TBAA4-005	LXES1TBAA4-005	E	4	1.3	5.5	1.6x1.6	0.6	1.32	.80	.655	.515	3000	.339
81-LXES4XBAA6-027	LXES4XBAA6-027	F	6	0.25	5.5	4.9x3.0	1.1	1.54	1.01	.833	.648	3000	.432