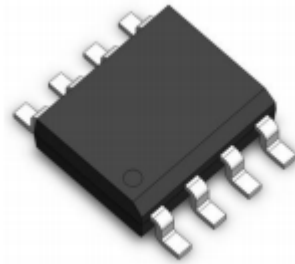


## Transient Voltage Suppressors for ESD Protection

### BLC03C-4

#### Description

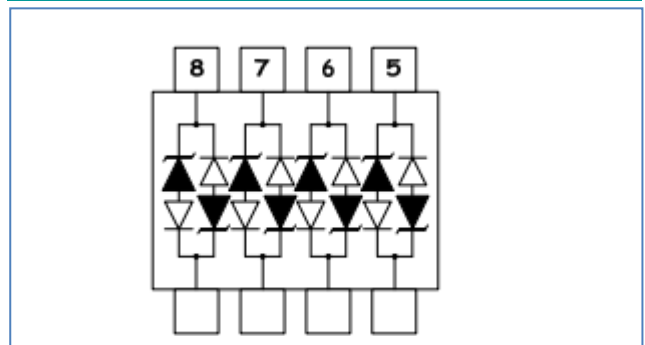
The BLC03C-4 is a small Surface-Mounted Device (SM-) special packages. It is designed to protect sensitive electronics from damage or latch up due to Electrostatic Discharge (ESD), lightning, and other voltage induced transient events. TVS diode designed to protect four power control line or four signal line from over voltage hazard of Electrostatic Discharge (ESD).



#### Feature

- ◆ 500 Watts Peak Pulse Power per Line ( $t_p=8/20\mu s$ )
- ◆ Protects Four Bidirectional I/O lines
- ◆ Low Clamping Voltage
- ◆ Working voltage : 3.3V
- ◆ Low leakage current

#### Functional Diagram



#### Applications

- ◆ High-Speed Data Lines
- ◆ Microprocessor Based Equipment
- ◆ Test & Measurement Equipment
- ◆ Parallel & Serial Port Protection
- ◆ Audio / Video Inputs
- ◆ Microcontroller Input Protection

#### Mechanical Data

- ◆ JEDEC SOP-08 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 70 Milligrams (Approximate)
- ◆ Lead Finish : Lead Free

#### Mechanical Characteristics

Symbol	Parameter	Value	Units
P <sub>pp</sub>	Peak Pulse Power ( $t_p=8/20\mu s$ waveform)	500	Watts
TL	Lead Soldering Temperature	260 (10 sec.)	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>J</sub>	Operating Junction Temperature Range	-55 to +150	°C

## Transient Voltage Suppressors for ESD Protection

### LC03-3.3

#### Electrical Characteristics(@25°C Unless Otherwise Specified)

Characteristics	Symbol	Test Conditions	Min.	Type	Max.	Unit
Reverse Working Voltage	VRWM		--	3.3	-	V
Reverse Breakdown Voltage	VBR	IT=1mA;	4	--	--	V
Reverse Leakage Current	IR	VRWM =3.3V, T=25°C;	--	--	40	Ma
Positive Clamping Voltage	VC	IPP =1A, TP =8/20μs;	--	--	6.8	V
Junction Capacitance	CJ	VR = 0V, f = 1MHz;	--	10	--	pF

### Characteristics Curves

Fig1: 8/20μs Pulse Waveform

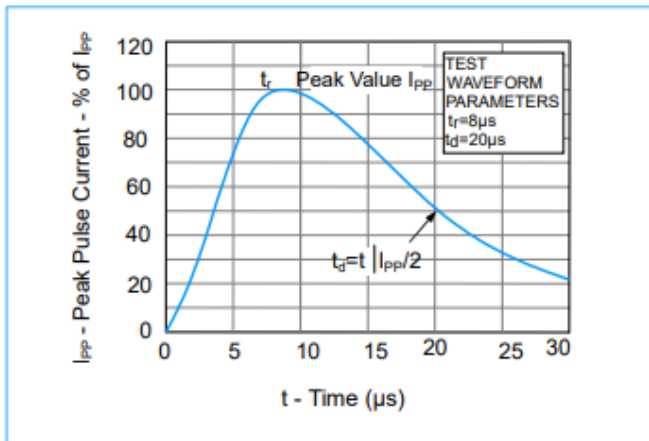


Fig2. Power Rating Derating Curve

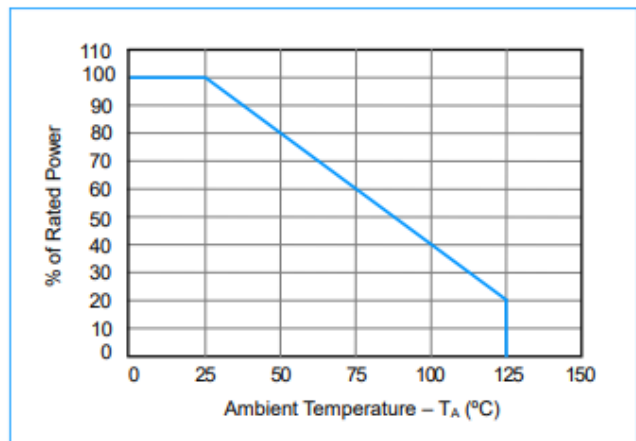
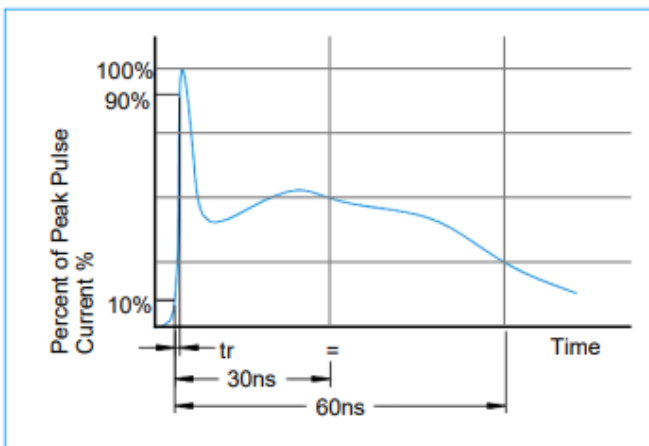


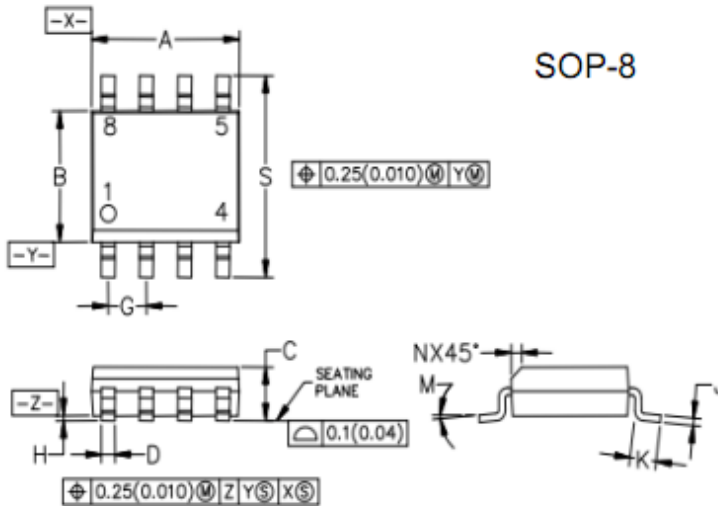
Fig3. ESD Pulse Waveform (according to IEC61000-4-2)



## Transient Voltage Suppressors for ESD Protection

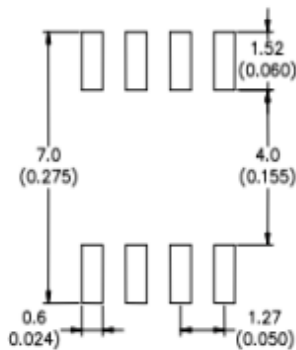
### BLC03C-4

### SOT-8 Package Outline & Dimensions



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	4.8	5	0.189	0.197
B	3.8	4	0.15	0.157
C	1.38	1.75	0.053	0.069
D	0.35	0.51	0.013	0.02
G	1.27BSC		0.050BSC	
H	0.1	0.25	0.004	0.01
J	0.19	0.25	0.007	0.01
K	0.4	1.27	0.016	0.06
M	0°	8°	0°	8°
N	0.25	0.5	0.01	0.02
S	5.8	8.2	0.228	0.244

#### Soldering Footprint



### Ordering Information

Device	Marking	Package	Quantity	Reel Size
BLC03C-4	BLCD A03C-4	SOP-8	2,500pcs/Reel	13 inch