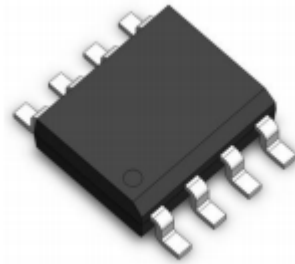


Transient Voltage Suppressors for ESD Protection

LC03-3.3

Description

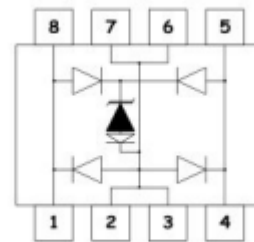
The LC03-3.3 is High power/ultra low capacitance TVS arrays designed to protect high speed data interfaces. This series has been specifically designed to protect sensitive components which are connected to high-speed data and transmission lines from over-voltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and EFT (electrical fast transients).



Feature

- ◆ 2000 Watts Peak Pulse Power per Line (tp=8/20µs)
- ◆ Protects Two Lines or One Line
- ◆ Low Capacitance
- ◆ RoHS Compliant
- ◆ IEC61000-4-2(ESD) ±30kV (air),±30kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ IEC61000-4-5 (LIGHTING) 100A (8/20µs)

Functional Diagram



Applications

- ◆ 10/100 Ethernet
- ◆ WAN/LAN Equipment
- ◆ Test & Measurement Equipment
- ◆ Switching Systems
- ◆ Instrumentation
- ◆ Audio/Video Inputs

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
Ppp	Peak Pulse Power (tp=8/20µs waveform)	2000	Watts
TL	Lead Soldering Temperature	260 (10 sec.)	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _J	Operating Junction Temperature Range	-55 to +150	°C

Transient Voltage Suppressors for ESD Protection

LC03-3.3

Electrical Characteristics(@25°C Unless Otherwise Specified)

Part Number	Device Marking Code		Stand-Off Voltage VRMW (V)	Breakdown Voltage VBR(Min)	Test Current IT (mA)	V C@1A (V) Max	Vc		Maximum Reverse Leakage I R @V RWM (uA)	Typ Junction Capacitance (pF)
							(Max.)	(@A)		
LC03-3.3	LC03-3.3	Pin1.8.4.5to pin2.3.6.7	3.3	3.5	1.0	5.8	23.0	100.0	0.2	25.0
LC03-3.3		pin1.8 to pin4.5 pin4.5 to pin1.8	3.3	3.5	1.0	6.8	33.0	100.0	0.1	15.0

Characteristics Curves

Fig1: 8/20µs Pulse Waveform

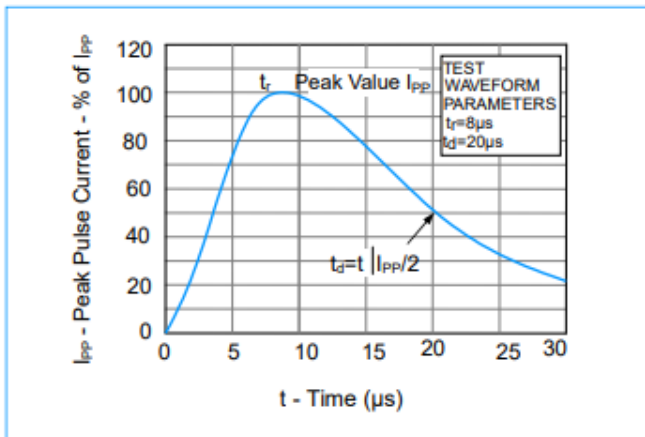


Fig2. Power Rating Derating Curve

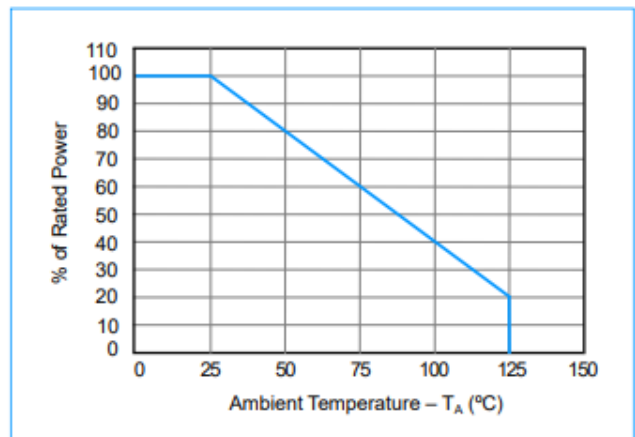


Fig3. ESD Pulse Waveform(according to IEC61000-4-2)

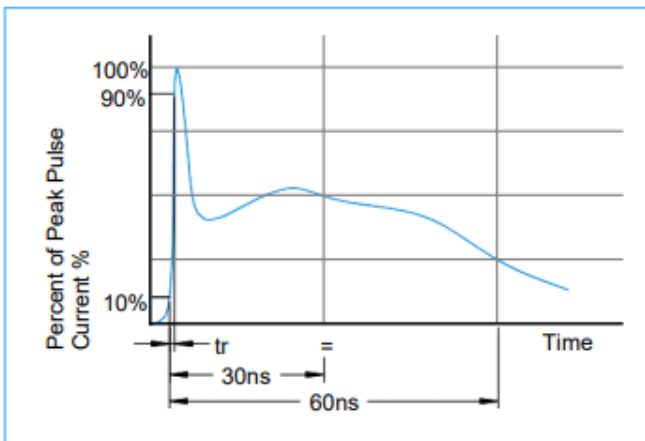
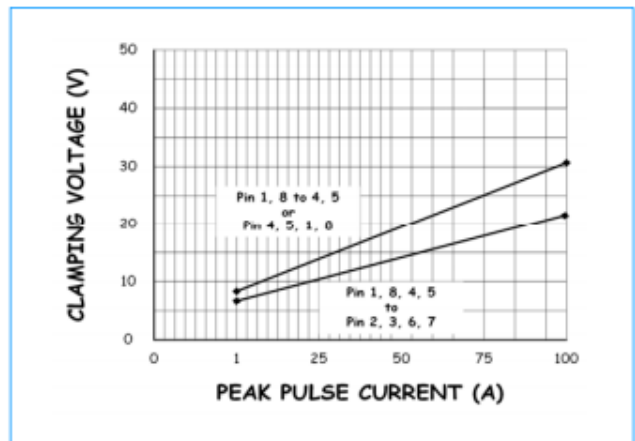


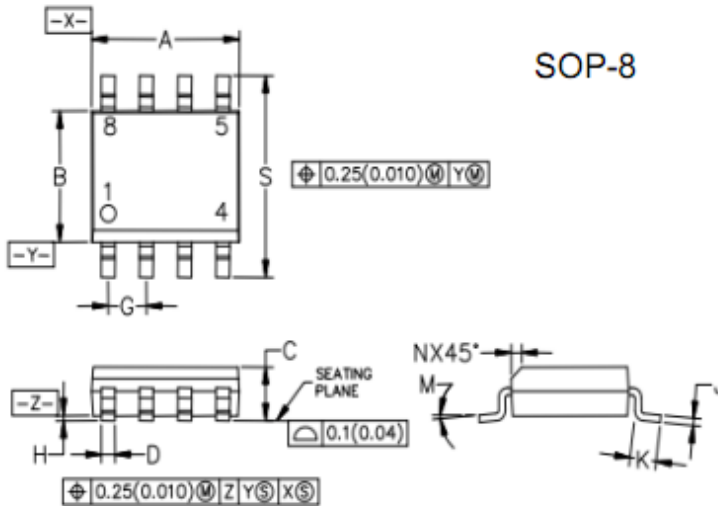
Fig4. ESD Clamping Voltage vs. Peak Pulse Current



Transient Voltage Suppressors for ESD Protection

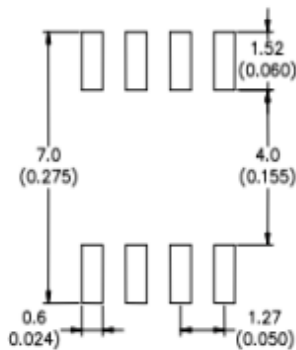
LC03-3.3

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
LC03-3.3	---	SOP-8	5,00pcs/Reel	7 inch