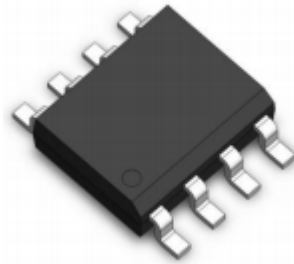


Transient Voltage Suppressors for ESD Protection

ESDXXV08S-4C Series

Description

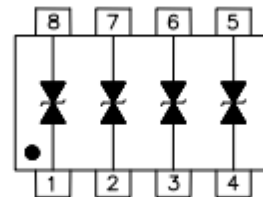
The ESDXXV08S-4C Series is in an SOP-08 package and may be used to protect two high-speed line pairs. The “flow-thru” design minimizes trace inductance and reduces voltage overshoot associated with ESD events. The low clamping voltage of the ESDXXV08S-4C minimizes the stress on the protected IC.



Feature

- ◆ 50~300 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- ◆ Protects four bidirectional I/O lines
- ◆ Low clamping voltage
- ◆ Working voltages : 3.3V, 5V, 12V, 15V and 24V
- ◆ Low leakage current
- ◆ IEC61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)

Functional Diagram



Applications

- ◆ RS-232, RS-422 & RS-423 Data Lines
- ◆ Audio/Video Inputs
- ◆ Wireless Network Systems
- ◆ Digit Video Interface (DVI)
- ◆ Medical Sensors
- ◆ Notebook Computers

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 ($t_p=8/20\mu s$ waveform)	50-300	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

ESDXXV08S-4C Series

Electrical Characteristics(@25°C Unless Otherwise Specified)

Part Number	Device Marking	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)		
ESD3.3V08S-4C	SMDA 3C	3.3	4.5	1.0	6.5	10.9	5.0	75.0	450.0
ESD05V08S-4C	SMDA0 5C	5.0	6.0	1.0	9.8	13.5	5.0	5.0	300.0
ESD12V08S-4C	SMDA 12C	12.0	13.3	1.0	19.0	25.9	5.0	1.0	100.0
ESD15V08S-4C	SMDA 15C	15.0	16.7	1.0	24.0	30.0	5.0	1.0	80.0
ESD24V08S-4C	SMDA 24C	24.0	26.7	1.0	43.0	49.0	5.0	1.0	50.0
ESD36V08S-4C	SMDA 36C	36.0	40.0	1.0	50.5	60.0	5.0	1.0	35.0

Characteristics Curves

Fig1: 8/20μs Pulse Waveform

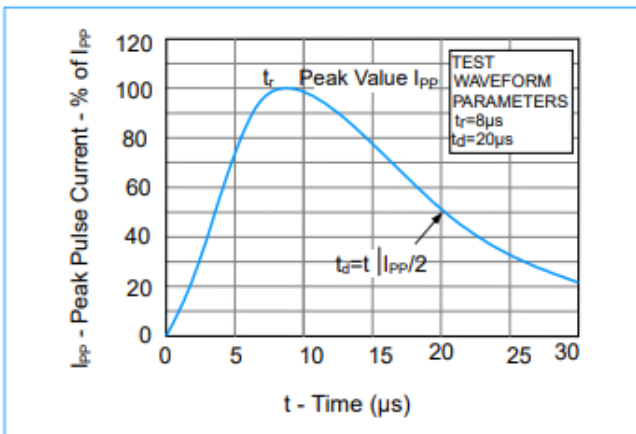


Fig2. Power Rating Derating Curve

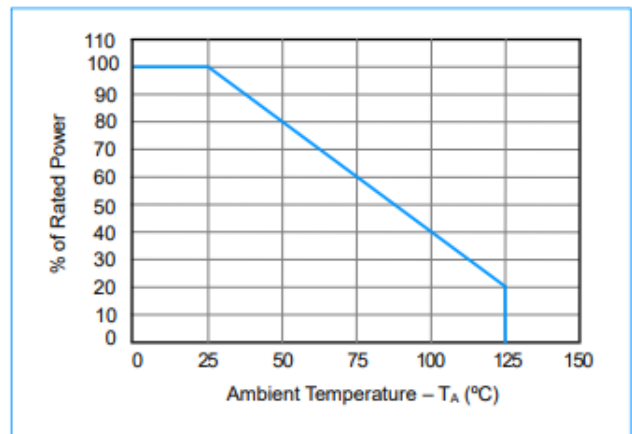
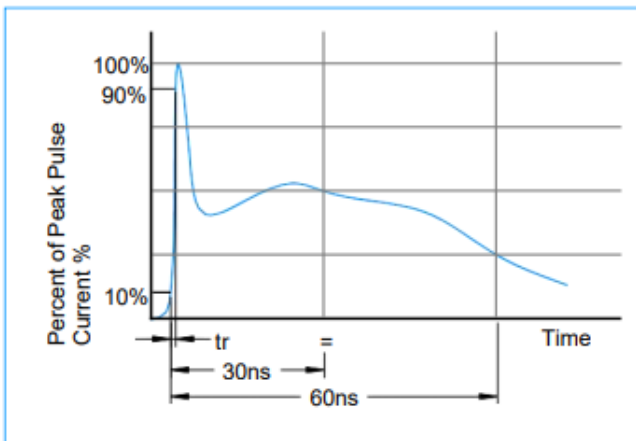


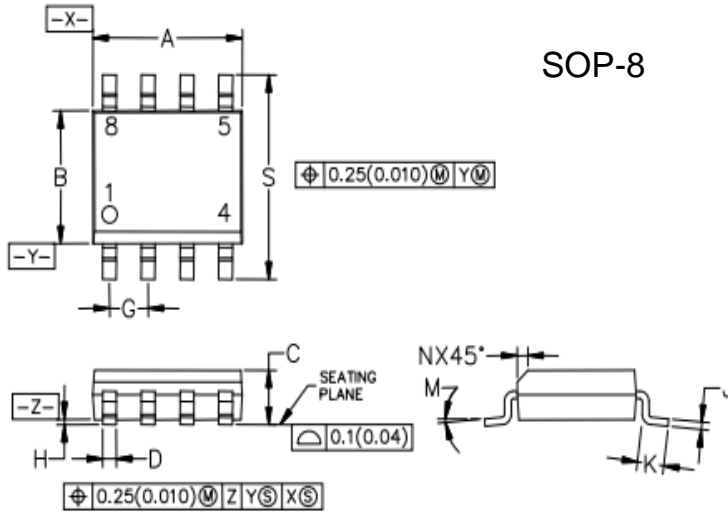
Fig3. ESD Pulse Waveform(according to IEC61000-4-2)



Transient Voltage Suppressors for ESD Protection

ESDXXV08S-4C Series

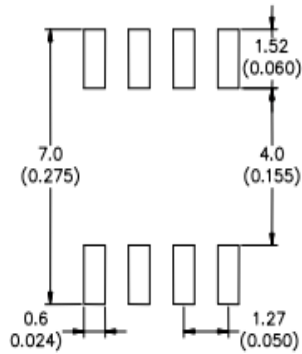
SOT-8 Package Outline & Dimensions



SOP-8

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
ESDXXV08s-4C Series	---	SOP-8	3,000pcs/Reel	13 inch