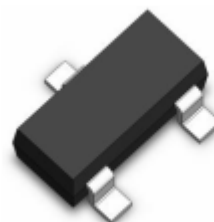


Transient Voltage Suppressors for ESD Protection

ESDXXV23T-2LC Series

Description

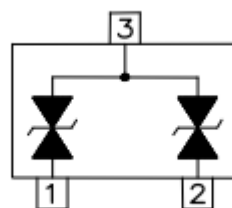
The ESDXXV23T-2LC series is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.



Feature

- ◆ Protects two bidirectional I/O lines
- ◆ Working voltage: 3.3V, 5V, 24V
- ◆ Low clamping voltage
- ◆ Low leakage current
- ◆ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)

Functional Diagram



Applications

- ◆ Portable Electronics
- ◆ Cellular Handsets and Accessories
- ◆ Industrial Controls
- ◆ Portable Instrumentation
- ◆ Set-Top Box
- ◆ Peripherals

Mechanical Data

- ◆ JEDEC SOT-23 Package
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Weight 8.0 Milligrams (Approximate)
- ◆ Lead Finish : Lead Free

Mechanical Characteristics

Symbol	Parameter	Value	Units
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

ESDXXV23T-2LC Series

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)		
ESD3.3V-23T-2LC	L33	3.3	4.5	1.0	6.0	12.0	2.5	10.0	12.0
ESD06V-23T-2LC	L50	5.0	6.0	1.0	9.8	15.0	2.5	1.0	10.0
ESD24V-23T-2LC	SCH	24.0	26.7	1.0	40.0	45.0	3.0	1.0	17.0

Characteristics Curves

Fig1: 8/20μs Pulse Waveform

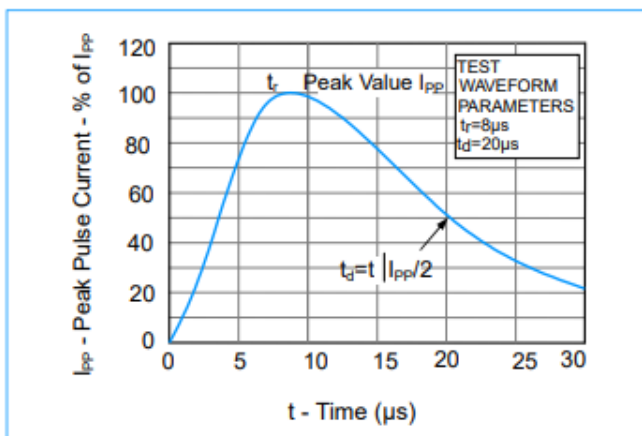


Fig2. Power Rating Derating Curve

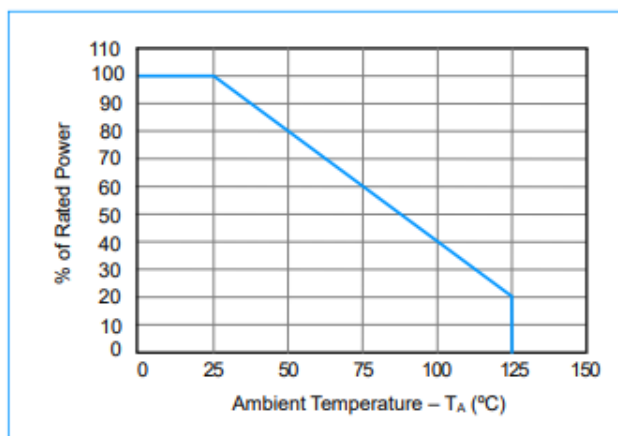
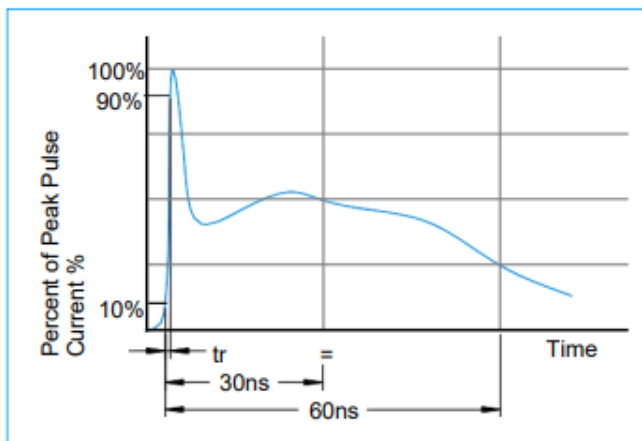


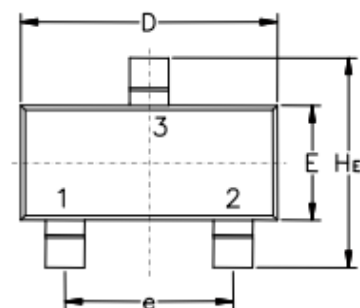
Fig3. ESD Pulse Waveform(according to IEC61000-4-2)



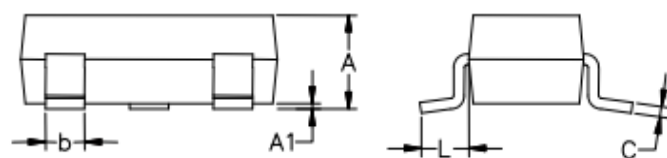
Transient Voltage Suppressors for ESD Protection

ESDXXV23T-2LC Series

SOT-23 Package Outline &Dimensions

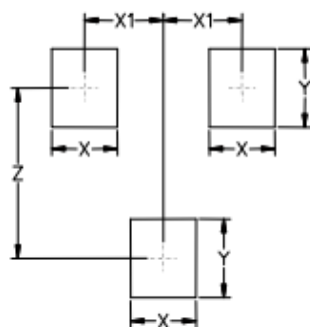


SOT-23



Symbol	Millimeters			Inches		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.89	1.00	1.11	0.035	0.040	0.044
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.37	0.44	0.50	0.15	0.18	0.020
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.90	3.04	0.110	0.114	0.120
E	1.20	1.30	1.40	0.047	0.051	0.055
e	1.78	1.90	2.04	0.070	0.075	0.081
L	0.35	0.54	0.69	0.014	0.021	0.029
He	2.10	2.40	2.64	0.083	0.094	0.104

Soldering Footprint



Symbol	Millimeters	Inches
X	0.80	0.031
X1	0.95	0.037
Y	0.90	0.035
Z	2.00	0.079

Ordering Information

Device	Marking	Package	Quantity	Reel Size
ESDXXV23T-2LC Series	---	SOT-23	3,000pcs/Reel	7 inch