Elektronische Bauelemente

ESD36-C

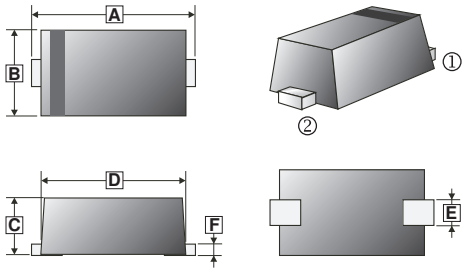
150mW, 36V
Transient Voltage Suppressors
for ESD Protection (Uni-direction)

RoHS Compliant Product
A suffix of "-C" specifies halogen and lead-free

DESCRIPTION

The ESD36-C 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. Because of its small size, it is suited for use in cellular phones, portable devices, digital cameras, power supplies and many other portable applications.

SOD-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.50	1.70	D	1.10	1.30
B	0.70	0.90	E	0.25	0.40
C	0.50	0.77	F	-	0.20

FEATURES

- IEC61000-4-2 Level 4 ESD Protection
- Uni-directional ESD protection of one line
- Reverse stand−off voltage: 36V
- Low reverse clamping voltage, Low leakage current
- Fast response time
- Protects one directional I/O line

APPLICATIONS

- Computers and peripherals
- Digital cameras
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics

MARKING

ZS

5Y

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-523	3K	7 inch

ORDER INFORMATION

Part Number	Type
ESD36-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter		Symbol	Limit	Unit
IEC 61000-4-2 ESD Voltage	Air Model	V_{ESD}	±25	kV
	Contact Model		±20	
Total Power Dissipation on FR-5 Board [1]		P_D	150	mW
Operating and Storage Temperature Range		T_J ,T_{STG}	125,-55~150	℃

Note:
1. Mount on FR-5=1.0x0.75x0.62 inch.

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Working Voltage	V_{RWM}	-	-	36	V	
Reverse Breakdown Voltage	V_{BR}	40	-	-	V	I_T=1mA
Reverse Leakage Current	I_R	-	-	5	μA	V_{RWM}=36V
Clamping Voltage	V_C	-	-	55	V	I_{PP}=1A, tp=8/20μs
Junction Capacitance	C_J	-	28	-	pF	V_R=0V, f=1MHz

ELECTRICAL CHARACTERISTICS CURVES

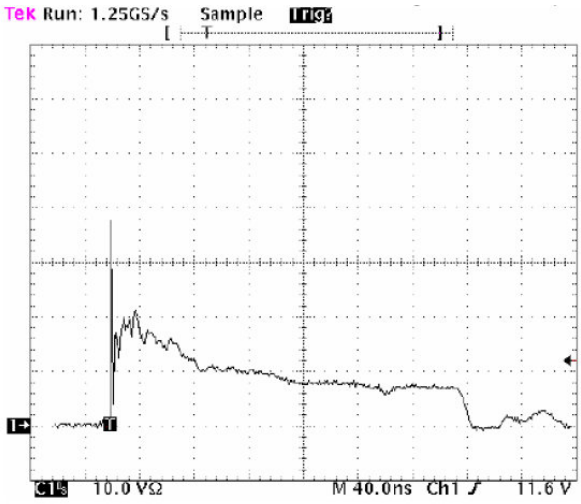


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

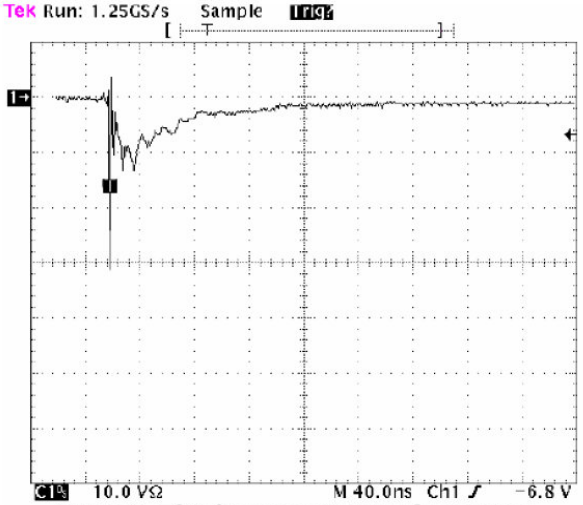
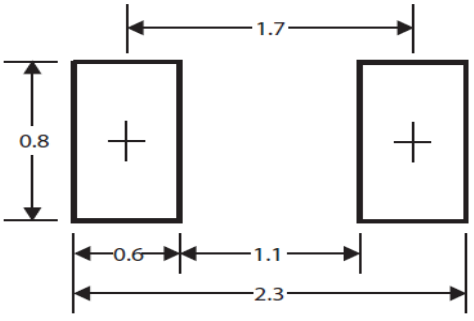


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2



*Dimensions in millimeters

Figure 3. Mounting Pad Layout