

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

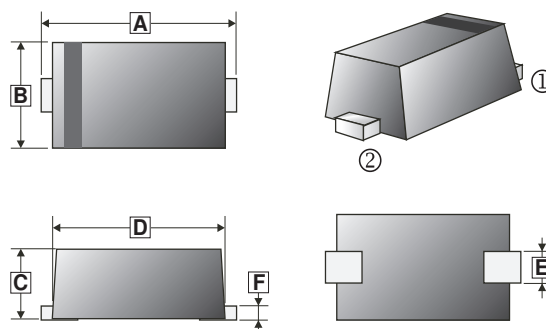
DESCRIPTION

The ESD24-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.

FEATURES

- IEC61000-4-2 Level 4 ESD Protection
- Protects one directional I/O line
- Working Voltages: 24V
- Low Clamping Voltage
- Low Leakage Current
- Flammability Rating: UL 94V-0

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

MARKING

5S



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-523	3K	7 inch

ORDER INFORMATION

Part Number	Type
ESD24-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter		Symbol	Ratings	Unit
IEC 61000-4-2 ESD Voltage	Air Model	V _{ESD}	±15	kV
	Contact Model		±8	
Total Power Dissipation on FR-5 Board ¹ @ T _A =25°C		P _D	150	mW
Junction and Storage Temperature Range		T _J , T _{STG}	125, -55~150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Working Voltage	V _{RWM}	-	-	24	V	
Breakdown Voltage	V _(BR)	26	-	-	V	I _T =1mA
Reverse Leakage Current	I _R	-	-	5	µA	V _{RWM} =24V
Clamping Voltage	V _C	-	-	35	V	I _{PP} =1A, t _p =8/20µs
Junction Capacitance	C _J	-	50	-	pF	V _R =0V, f=1MHz

Note:

1. FR-5=1.0x0.75x0.62 in.

RATINGS AND CHARACTERISTICS CURVES

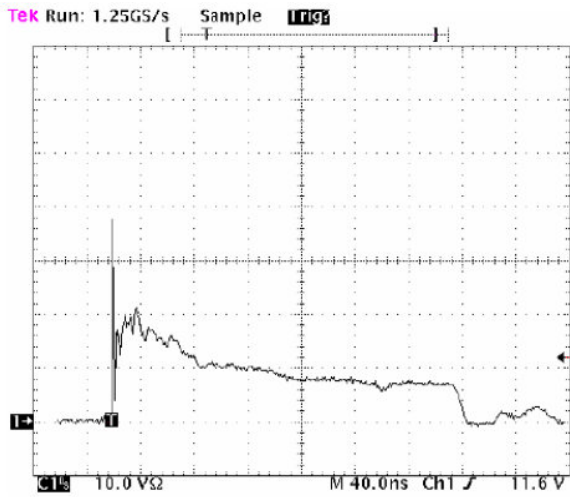


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

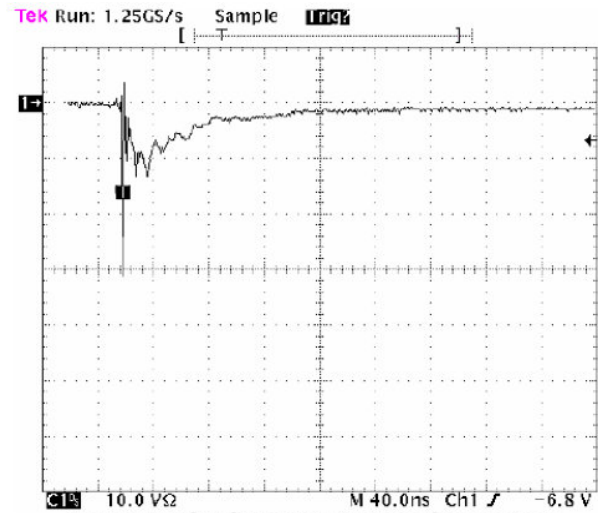


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

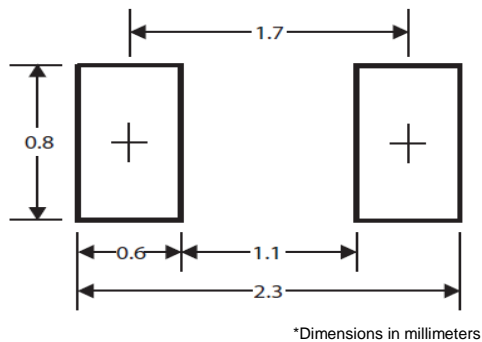


Figure 3. Mounting Pad Layout