

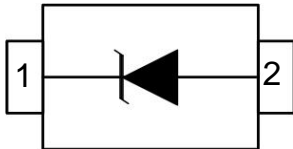
DESCRIPTION

KESDxxxD523-2U 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.

ORDERING INFORMATION

- ✧ Package: SOD-523
- ✧ Material: Halogen free
- ✧ Packing: Tape & Reel
- ✧ Quantity per reel: 3,000pcs

PIN CONFIGURATION



FEATURES

- ✧ IEC61000-4-2 Level 4 ESD Protection
- ✧ Protects one directional I/O line
- ✧ Low clamping voltage
- ✧ Working voltages : 2.5V,3.3V, 5V,6V,7V,12V,15V
- ✧ Low leakage current

MACHANICAL DATA

- ✧ SOD-523 package
- ✧ Flammability Rating: UL 94V-0
- ✧ Packaging: Tape and Reel
- ✧ High temperature soldering guaranteed:260°C/10s
- ✧ Reel size: 7 inch

APPLICATIONS

- ✧ Cell Phone Handsets and Accessories
- ✧ Microprocessor based equipment
- ✧ Personal Digital Assistants (PDA's)
- ✧ Notebooks, Desktops, and Servers
- ✧ Portable Instrumentation
- ✧ Peripherals
- ✧ Pagers

PACKAGE OUTLINE



ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V _{ESD}	ESD per IEC 61000-4-2 (Air)	±30	kV
	ESD per IEC 61000-4-2 (Contact)	±22	
ESD	ESD Voltage per human body model	16	kV
	ESD Voltage per machine model	400	V
P _D	Total Power Dissipation on FR-5 Board (Note 1) @ Ta=25°C	150	mW
T _J , T _{STG}	Junction and Storage Temperature	-55/+150	°C
T _L	Lead Solder Temperature – Maximum (10 Second Duration)	260	°C

These ratings are limiting values above which the serviceability of the diode may be impaired

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

ELECTRICAL CHARACTERISTICS (Tamb=25°C)

PART NUMBER	V _{RWM} (V)	I _R (μA)	V _B (V)	I _T (mA)	V _C (V)		V _C (V)		P _{PK} (W)	C _J (pF)
	Max	Max	Min		Max	@A	Max	@A	Max	Max
KESD2V5D523-2U	2.5	6.0	4.0	1	9.0	5.0	11.5	9.0	104	145
KESD3V3D523-2U	3.3	0.90	5.0	1	10.0	5.0	14.0	7.5	105	105
KESD5V0D523-2U	5.0	0.08	6.2	1	11.6	5.0	15.0	7.0	105	80
KESD6V0D523-2U	6.0	0.05	6.8	1	13.5	5.0	17.5	6.0	105	70
KESD7V0D523-2U	7.0	0.03	7.5	1	14.0	5.0	18.0	6.0	108	65
KESD12VD523-2U	12.0	0.03	14.1	1	20.0	1.0	26.0	4.0	104	45
KESD15VD523-2U	15.0	0.50	16.0	1	23.0	1.0	30.0	4.0	120	28

ELECTRICAL CHARACTERISTICS CURVE

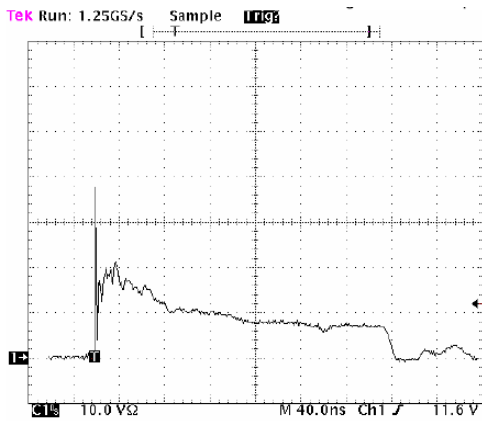


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

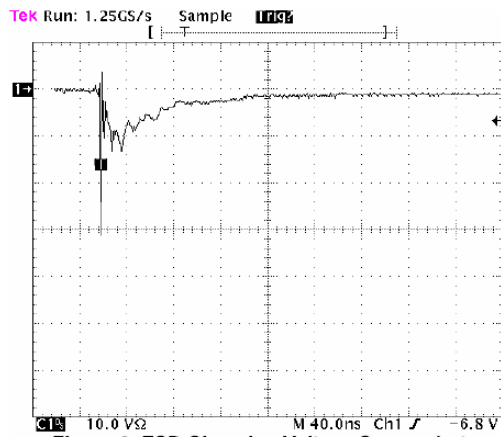
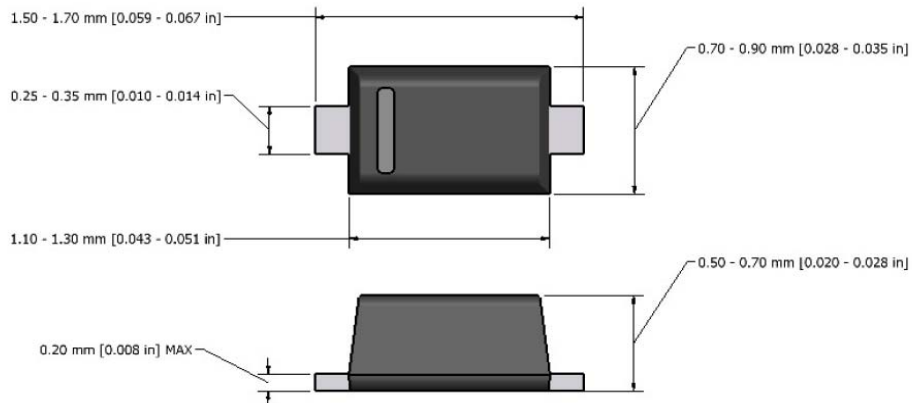


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

SOD-523 PACKAGE OUTLINE DIMENSIONS



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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