

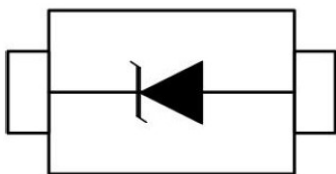
DESCRIPTION

The KPESDxxS1UA is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

This series has been specifically designed to protect sensitive components which are connected to power, data and transmission lines from overvoltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and EFT (electrical fast transients).

ORDERING INFORMATION

- ◇ Device: KPESDxxS1UA
- ◇ Package: SOD-323
- ◇ Material: Halogen free
- ◇ Packing: Tape & Reel
- ◇ Quantity per reel: 3,000pcs

PIN CONFIGURATION**FEATURES**

- ◇ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- ◇ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◇ 350 Watts Peak Pulse Power per (tp=8/20 μ s)
- ◇ Protects one I/O line (unidirectional)
- ◇ Low clamping voltage
- ◇ Working voltages : 3.3V to 36V
- ◇ Low leakage current

MACHANICAL DATA

- ◇ SOD-323 package
- ◇ Flammability Rating: UL 94V-0
- ◇ Packaging: Tape and Reel
- ◇ High temperature soldering guaranteed: 260°C/10s
- ◇ Reel size: 7 inch
- ◇ MSL 1

APPLICATIONS

- ◇ Cell Phone Handsets and Accessories
- ◇ Microprocessor based equipment
- ◇ Personal Digital Assistants (PDA's)
- ◇ Notebooks, Desktops, and Servers
- ◇ Portable Instrumentation
- ◇ Networking and Telecom
- ◇ Serial and Parallel Ports
- ◇ Peripherals

PACKAGE OUTLINE

ABSOLUTE MAXIMUM RATING

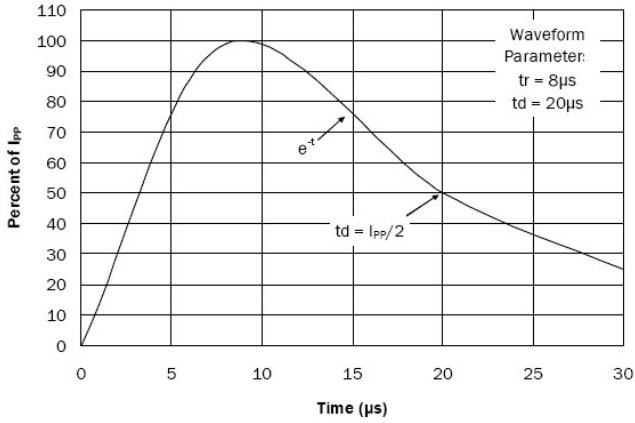
Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	± 15 ± 8	kV
P_{PP}	Peak Pulse Power (8/20 μ s)	350	W
T_{OPT}	Operating Temperature	-55/+150	$^{\circ}$ C
T_{STG}	Storage Temperature	-55/+150	$^{\circ}$ C
T_L	Lead Soldering Temperature	260 (10 sec.)	$^{\circ}$ C

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}$ C)

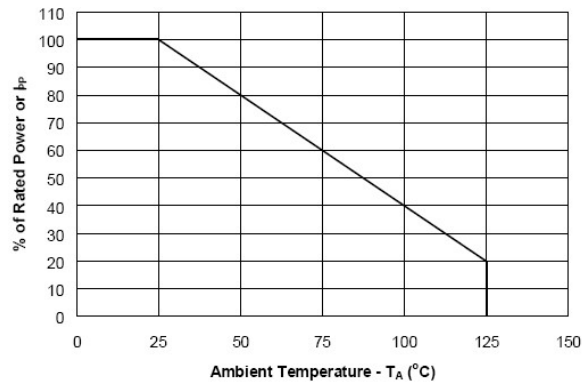
PART NUMBER	DEVICE MARKING	V_{RWM}	V_B	I_T	$V_C@1A$	V_C		I_R	C_T
		(V) (max.)	(V) (min.)	(mA)	(V) (max.)	(V) (max.)	(@A)	(μ A) (max.)	(pF) (max.)
KPESD3V3S1UA	03W	3.3	4	1	6.5	14	20	40	450
KPESD5V0S1UA	05W	5	6	1	9.8	18	17	10	300
KPESD8V0S1UA	08W	8	8.5	1	10.5	24	15	1	240
KPESD12VS1UA	12W	12	13.3	1	19	32	11	1	130
KPESD15VS1UA	15W	15	16.7	1	24	38	10	1	120
KPESD18VS1UA	18W	18	20.0	1	29	45	9	1	100
KPESD20VS1UA	20W	20	22.3	1	35	50	8	1	90
KPESD24VS1UA	24W	24	26.7	1	43	52	7	1	80
KPESD36VS1UA	36W	36	40	1	60	75	5	1	60

ELECTRICAL CHARACTERISTICS CURVE

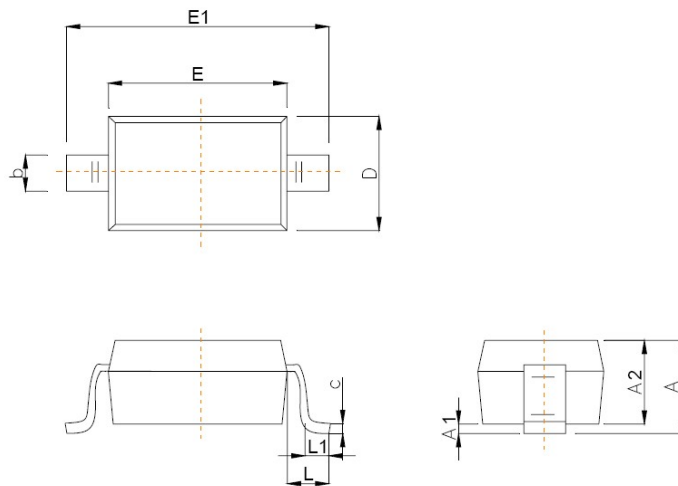
Pulse Waveform



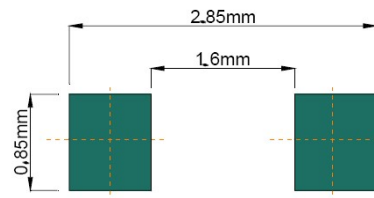
Power Derating Curve



SOD-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters	
	Min	Max
A		1.00
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
e	1.800	2.040
L	0.475 REF	
L1	0.250	0.400
θ	0°	8°



Recommended Pad outline