

**LOW CAPACITANCE  
TVS DIODE ARRAY**
**APPLICATIONS**

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

**IEC COMPATIBILITY**

- ◆ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact) : 5V
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ IEC61000-4-5 (Lighting) 2 ~ 15A (8/20µs)

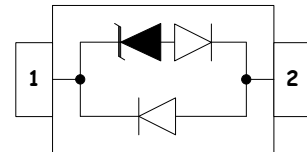
**FEATURES**

- ◆ 350 Watts Peak Pulse Power per Line (tp=8/20µs)
- ◆ Protects one I/O line
- ◆ Low clamping voltage
- ◆ Working voltages: 5V
- ◆ Low leakage current

**MECHANICAL CHARACTERISTICS**

- ◆ SOD-323 Package
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Weight 5 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free

**SOD-323**

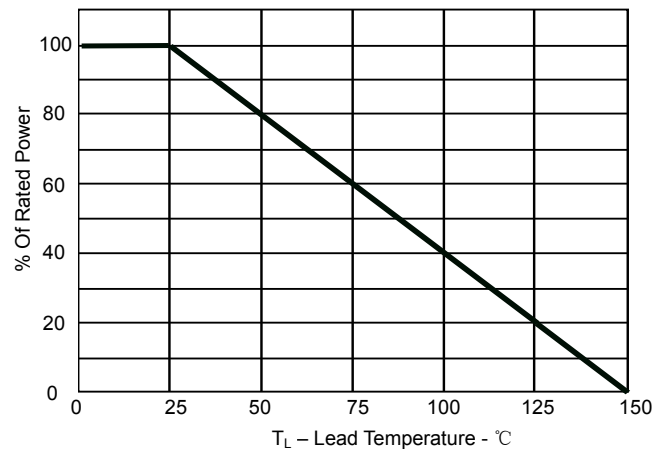
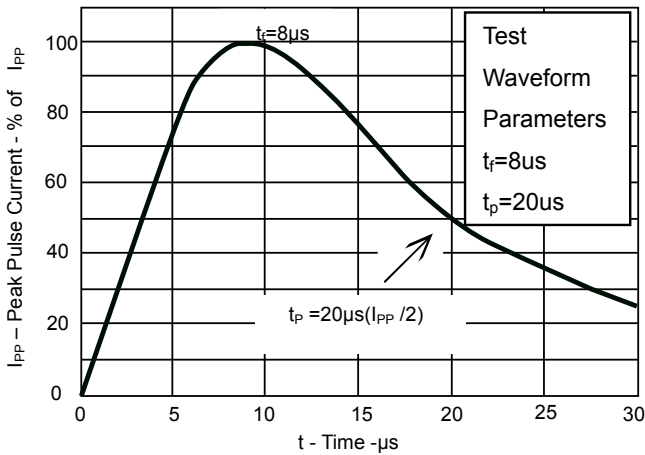
**PIN CONFIGURATION**

 UNIDIRECTIONAL TVS  
ESD3DxxxU1LxxxH

**Absolute maximum rating@25°C**

Rating	Symbol	Value	Unit
Peak Pulse Power ( tP = 8/20µS )	Ppp	350	W
Lead Solder Temperature –Maximum (10 Seconds)	TL	260	°C
Operating Junction Temperature Range	TJ	-40 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

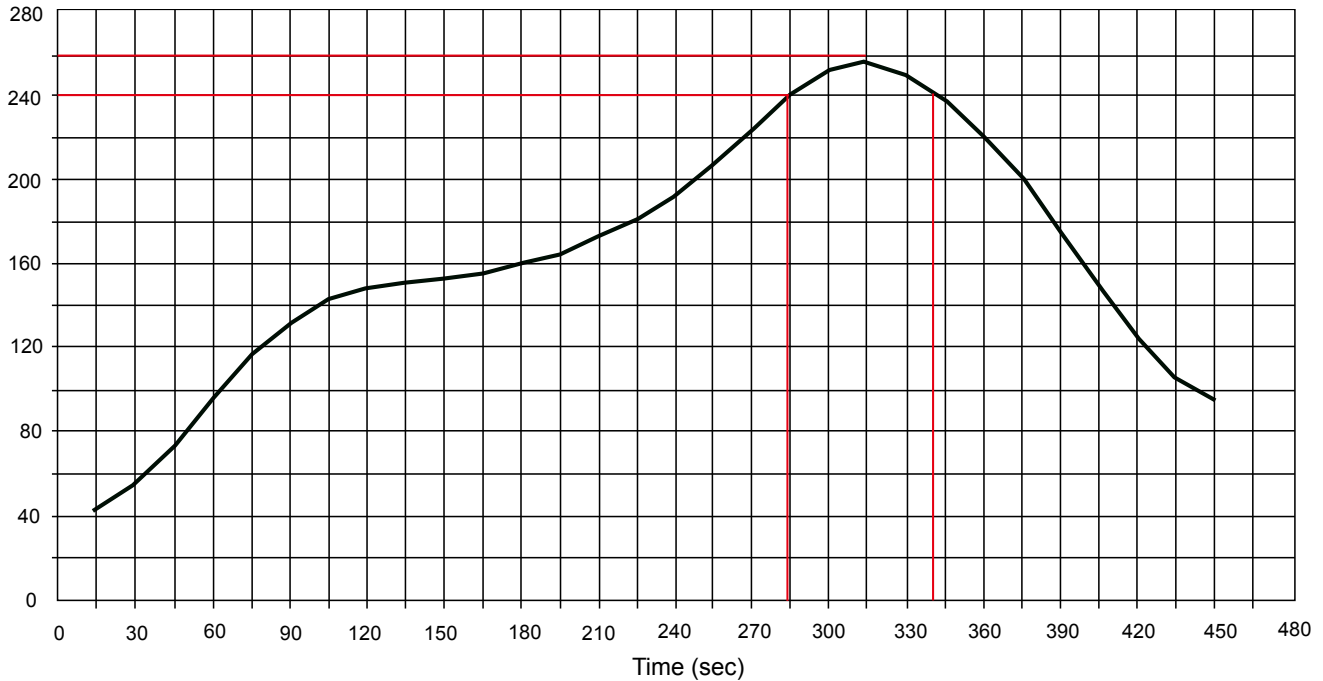
**DEVICE CHARACTERISTICS**

ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)										
PART NUMBER	P <sub>pp</sub> W	DEVICE MARKING	V <sub>RWM</sub> (V) (max.)	V <sub>B</sub> (V) (min.)	I <sub>T</sub> (mA)	V <sub>C</sub> @1A (max.)	V <sub>C</sub> (max.) (@A)		I <sub>R</sub> (μA) (max.)	C <sub>T</sub> (pF) (max.)
SESLC5VD323-2U	350	S5	5.0	6.0	1	9.8	25	14	5	1

**Typical Characteristics**


## Solder Reflow Recommendation

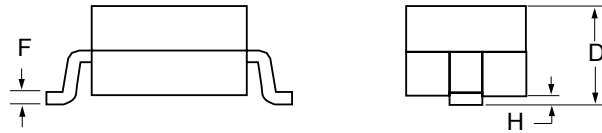
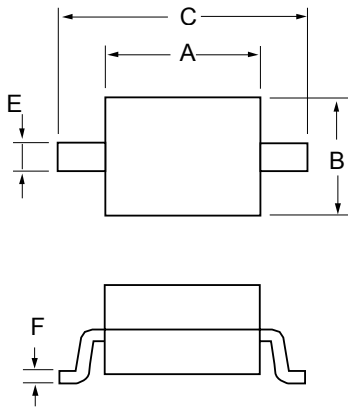
Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



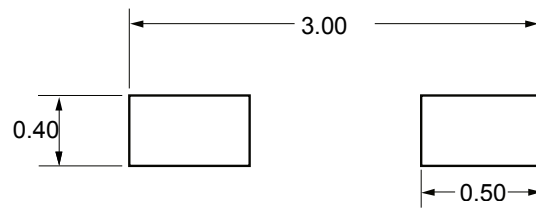
## PCB Design

For TVS diodes a low-ohmic and low-inductive path to chassis earth is absolutely mandatory in order to achieve good ESD protection. Novices in the area of ESD protection should take following suggestions to heart:

- Do not use stubs, but place the cathode of the TVS diode directly on the signal trace.
- Do not make false economies and save copper for the ground connection.
- Place via holes to ground as close as possible to the anode of the TVS diode.
- Use as many via holes as possible for the ground connection.
- Keep the length of via holes in mind! The longer the more inductance they will have.

**Product dimension (SOD-323)**


Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.063	0.075	1.60	1.90
B	0.045	0.057	1.15	1.45
C	0.090	0.106	2.30	2.70
D	0.031	0.043	0.80	1.00
E	0.010	0.01	0.25	0.40
F	0.004	0.007	0.09	0.18
H	0.000	0.004	0.00	0.10



Unit:mm