

## DESCRIPTION

The SESDxx and SESDxxC Series are transient voltage suppressor arrays designed for ESD protection of SMART phones, laptop computers and other portable electronics. These silicon based diodes offer superior clamping voltage and performance compared to other technologies such as MLVs.

The SESDxx and SESDxxC Series can be utilized as a single line protector in either a unidirectional or bidirectional configuration. The SOD-323 small package configuration offers designers the flexibility of placement on the printed circuit board for each I/O port or voltage bus. The SESDxx and SESDxxC Series meets the IEC 61000-4-2 (ESD), 61000-4-4 (EFT) and 61000-4-5 requirements.



## FEATURES

- >350 Watts Peak Pulse Power per Line ( $t_p=8/20\mu s$ )
- >Protects One Power or I/O Port
- >Low clamping voltage
- >Working voltages: 3V, 5V, 8V, 12V, 15V, 24V, 36V
- >Low leakage current

## APPLICATIONS

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

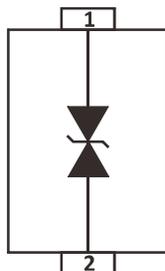
## IEC COMPATIBILITY

- >IEC61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)

## PIN CONFIGURATIONS



UNIDIRECTIONAL



BIDIRECTIONAL

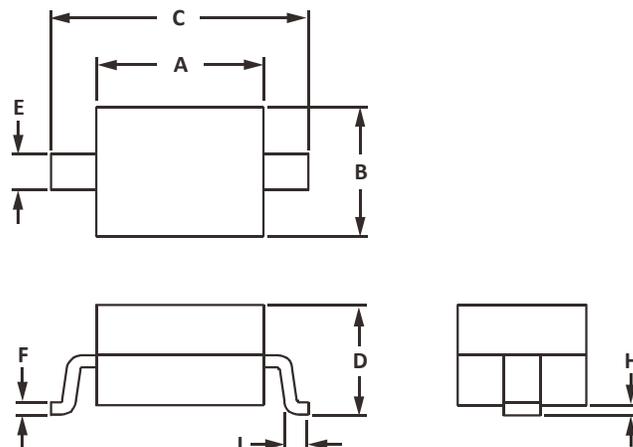
**TYPICAL DEVICE CHARACTERISTICS**

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED			
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20μs waveform)	P <sub>PP</sub>	350	Watts
Lead Soldering Temperature	T <sub>L</sub>	260(10 sec.)	°C
Operating Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C

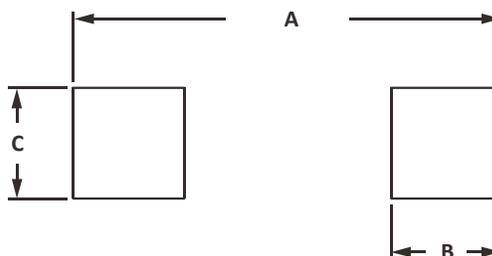
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED									
PART NUMBER	DEVICE MARKING	V <sub>RWM</sub> (V) Max.	V <sub>B</sub> (V) Min.	I <sub>T</sub> (mA)	V <sub>C</sub> @1A Max.	V <sub>C</sub>		I <sub>R</sub> (μA) Max.	C <sub>T</sub> (pF) Typ.
						Max.	@A		
SESD03	03W	3.0	4.0	1	6.50	10.9	30.0	40	500
SESD05	05W	5.0	6.0	1	9.80	13.5	24.0	10	350
SESD08	08W	8.0	8.5	1	13.40	21.0	18.0	10	150
SESD12	12W	12.0	13.3	1	19.00	25.9	15.0	1	120
SESD15	15W	15.0	16.7	1	24.00	30.0	12.0	1	100
SESD24	24W	24.0	26.7	1	43.00	48.0	8.0	1	80
SESD36	36W	36.0	40.0	1	60.00	75.0	5.0	1	30
SESD03C	2A	3.0	4.0	1	7.50	16.0	25.0	200	350
SESD05C	2B	5.0	6.0	1	9.80	17.0	24.0	10	260
SESD08C	2C	8.0	8.5	1	13.40	20.0	18.0	5	120
SESD12C	2D	12.0	13.3	1	19.00	25.0	13.0	1	110
SESD15C	2J	15.0	16.7	1	24.00	30.0	6.0	1	100
SESD24C	2H	24.0	26.7	1	43.00	52.0	6.0	1	75
SESD36C	2N	36.0	40.0	1	60.00	75.0	4.0	1	35

### SOD-323 PACKAGE INFORMATION

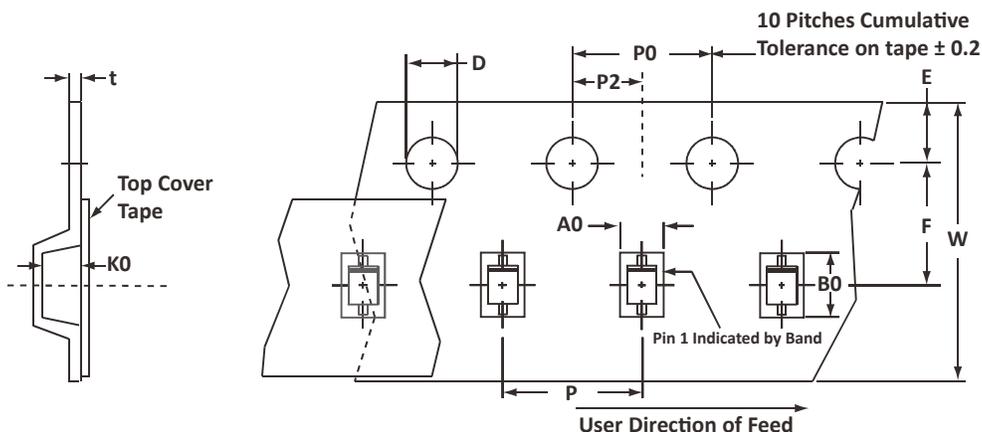
OUTLINED DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.90	0.063	0.075
B	1.15	1.45	0.045	0.057
C	2.39	2.70	0.094	0.106
D	0.80	1.10	0.031	0.043
E	0.25	0.40	0.010	0.016
F	0.10	0.20	0.004	0.008
H	-	0.10	-	0.004
L	0.20	-	0.008	-



PAD LAYOUT DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.87	3.12	0.113	0.123
B	0.66	0.91	0.026	0.036
C	0.66	0.91	0.026	0.036



### TAPE AND REEL



SPECIFICATIONS												
REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	1.55 ± 0.10	2.90 ± 0.10	1.35 ± 0.10	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25
<b>NOTES</b> 1. Dimensions are in millimeters. 2. Surface mount product is taped and reeled in accordance with EIA-481. 3. Suffix - T7 = 7" Reel - 3,000 pieces per 8mm tape. 4. Marking on Part - marking code (see page 2)												

ORDERING INFORMATION					
BASE PART NUMBER (xx = Voltage)	LEAD FREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
SESDXX(C)	-LF	-T7	3,000	7"	n/a
This device is only available in a Lead-Free configuration.					

## CONTACT US

### Headquarters

A Building Caohejing I&E Park Pujiang Minhang Shanghai  
China

### Hotline

400-021-5756

### Web

<http://www.semiwill.com>

### By Telephone

General: 86-21-3463-7173

Sales: 86-21-3463-7172

Customer Service: 86-21-3463-7173-8810/8826

Technical Support: 86-21-3463-7173-8811

### By Email

Sales: [sales17@semiwill.com](mailto:sales17@semiwill.com)

Customer Service: [sales08@semiwill.com](mailto:sales08@semiwill.com)

Technical Support: [fae03@semiwill.com](mailto:fae03@semiwill.com)

### By Fax

General: 86-21-3965-0654

Sales: 86-21-3463-7458

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