

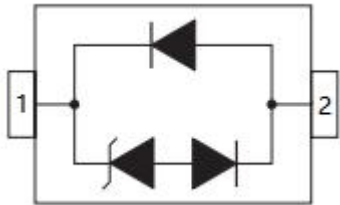
## SD03LC THRU SD24LC TVS ARRAY



### Features

- Protects 3.3, 5, 8, 12, 15, 18, 24V Components
- 350 Watts Peak Pulse Power per Line (tp = 8/20µs)
- Unidirectional Configurations
- Replacement for MLV (0805)
- Protects One Power or I/O Port
- Low Clamping Voltage
- Terminals finish: 100% Pure Tin
- This is a Pb-free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Schematic & Pin Configuration



### Application

- Ethernet - 10/100/1000 Base T
- Cellular Phones
- Handheld - Wireless Systems
- Personal Digital Assistant (PDA)
- USB Interface
- Pagers peripherals

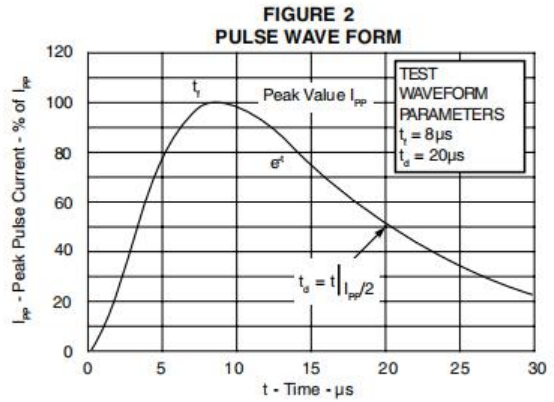
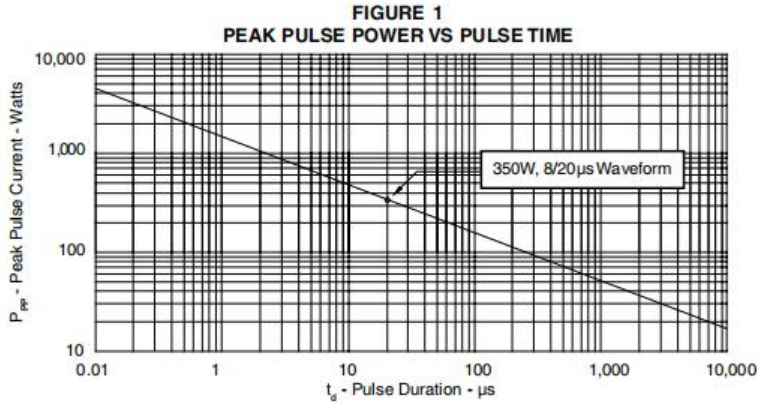
### Maximum Ratings@T<sub>A</sub>=25° C unless otherwise specified

Parameter	Symbol	Value	Units
Peak Pulse Power (tp=8/20 µ s)	P <sub>pp</sub>	350	W
Operating Temperature	T <sub>J</sub>	-55 to 150	° C
Storage Temperature	T <sub>STG</sub>	-55 to 150	° C

### Electrical Characteristics@T<sub>A</sub>=25°C unless otherwise specified

Part Name	Marking Code	Stand-off Voltage V <sub>wm</sub> (v) Max	Breakdown Voltage V <sub>BR</sub> @1mA (V) Min	Clamping Voltage V <sub>c</sub> @ 1 A (V) Max	Clamping Voltage V <sub>c</sub> @ I <sub>PP</sub> (V) Max	Peak Pulse Current (tp=8/20us) I <sub>PP</sub> (A)	Leakage Current I <sub>r</sub> @V <sub>wm</sub> (uA) Max	Capacitance (f=1MHz) @0V (pF) Max
SD03LC	03LC	3.3	4	7	19	20	5	5
SD05LC	05LC	5	6	9.8	18.3	17	5	5
SD08LC	08LC	8	8.5	13.4	18.5	17	2	5
SD12LC	12LC	12	13.3	19	28.6	11	1	5
SD15LC	15LC	15	16.7	24	31.8	10	1	5
SD18LC	18LC	18	20	29	45	8	1	5
SD24LC	24LC	24	26	43	56	6	1	5

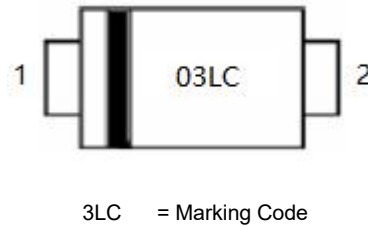
**Ratings and Characteristics Curves**



**Ordering Information**

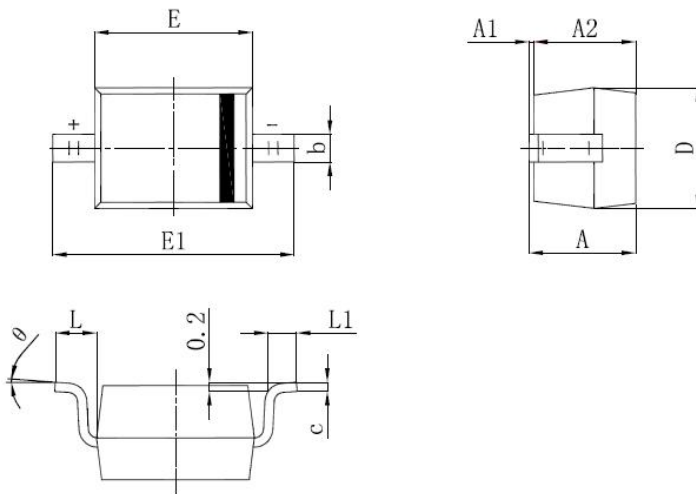
Device	Package	Shipping
SD03LC THRU SD24LC	SOD-323 (Pb-Free)	3000pcs / reel
SD03LCTR THRU SD24LCTR	SOD-323 (Pb-Free)	3000pcs / reel

**Marking Diagram**



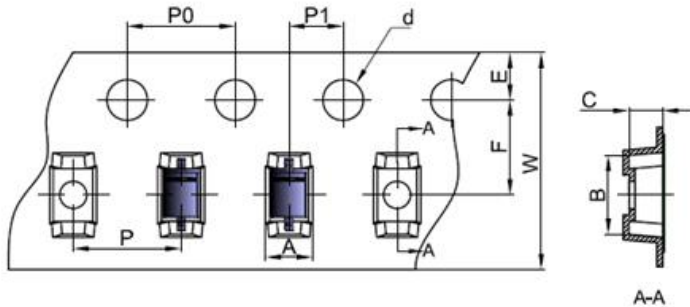
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Mechanical Dimensions SOD-323**



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	-	1.000	-	0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.700	0.098	0.106
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

**Carrier Tape Specification SOD-323**



SYMBOL	Millimeters	
	Min.	Max.
B	2.85	2.95
C	1.20	1.30
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

**DISCLAIMER:**

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC Diode Solutions be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Diode Solution assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC Diode Solutions be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Diode Solutions.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Diode Solutions.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..