

Technical Data Data Sheet N2248, Rev. A





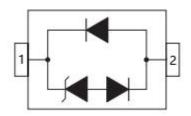
SD03LC THRU SD24LC TVS ARRAY



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
- Personnal Digital Assistant (PDA)
- USB Interface
- Pagers peripherals

Maximum Ratings@T_A=25° C unless otherwise specified

| Parameter | Symbol | Value | Units |
|--------------------------------|------------------|------------|-------|
| Peak Pulse Power (tp=8/20 μ s) | P _{pp} | 350 | W |
| Operating Temperature | TJ | -55 to 150 | ° C |
| Storage Temperature | T _{STG} | -55 to 150 | ° C |

Electrical Characteristics@TA=25°C unless otherwise specified

| Part Name | Marking Code | Stand-off Voltage Vwm (v) Max | Breakdown Voltage V₅ℝ @1mA (V) Min | Clamping Voltage Vc @ 1 A (V) Max | Clamping Voltage Vc @ I _{PP} (V) Max | Peak Pulse Current (tp=8/20us) I _{PP} (A) | Leakage Current Ir @Vwm (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 |

- China Germany Korea Singapore United States
 - http://www.smc-diodes.com sales@ smc-diodes.com •

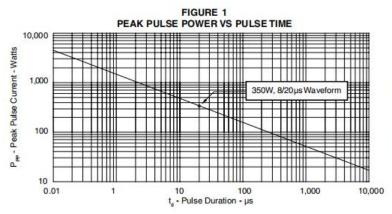


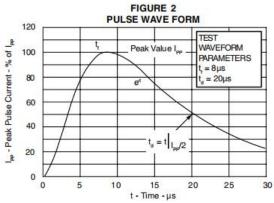
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Ratings and Characteristics Curves



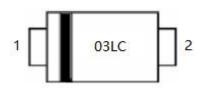


Ordering Information

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

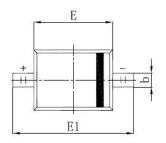
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

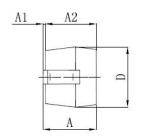
Marking Diagram

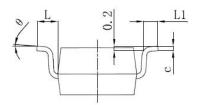


3LC = Marking Code

Mechanical Dimensions SOD-323







| OVMBOL | Millim | neters | Inches | |
|--------|------------|--------|------------|-------|
| SYMBOL | MIN. | MAX. | MIN. | MAX. |
| Α | - | 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 |
| С | 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° |

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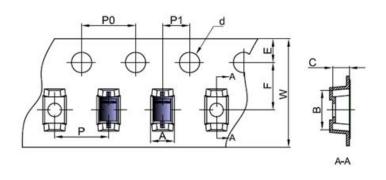


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Carrier Tape Specification SOD-323



| SYMBOL | Millimeters | | | |
|----------|-------------|------|--|--|
| STIVIBUL | Min. | Max. | | |
| В | 2.85 | 2.95 | | |
| С | 1.20 | 1.30 | | |
| d | 1.40 | 1.60 | | |
| E | 1.65 | 1.85 | | |
| F | 3.40 | 3.60 | | |
| Р | 3.90 | 4.10 | | |
| P0 | 3.90 | 4.10 | | |
| P1 | 1.90 | 2.10 | | |
| W | 7.90 | 8.30 | | |

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