

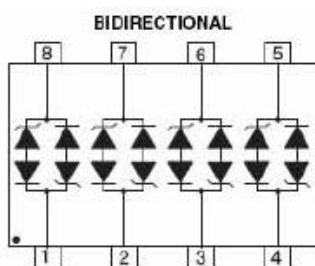
SMDB03LCC THRU SMDB36LCC TVS ARRAY SERIES



Description

The SMDBXXLCC series of TVS array have been designed to provide bidirectional protection for sensitive electronics from damage due to voltage transients caused by electrostatic discharge (ESD), electrical fast transients (EFT), lightning and other voltage-induced transient events. The device can be used to protect combinations of four bidirectional lines.

Schematic & Pin Configuration



Features

- Protects 3.3, 5, 12, 15, 24, 36 V Components
- Bidirectional
- Provides Electrically Isolated Protection
- 500 W @ 8/20 μ s
- Protects 4 Lines
- SO-8 Packaging
- "-A" is an AEC-Q101 qualified device
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Characteristics

- SO-8 Surface Mount Package
- Approximate Weight: 0.1 grams
- PIN #1 Indicator: DOT on top of package
- Packaging: Tubes or Tape & Reel per EIA Standard 481

Application

- RS-232 & RS-422 data lines
- Microprocessor Based Equipment
- Notebooks, Desktops, & Servers
- LAN/WAN Equipment
- Serial and Parallel Port
- Peripherals

Absolute Maximum Ratings:

Parameter	Symbol	Value	Units
Peak Pulse Power, 8/20 μ s Wave shape	P	500	W
Operating Temperature	T _J	-55 to +125	°C
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	ESD	\pm 20 \pm 20	kV
Storage Temperature	T _{stg}	-55 to +150	°C
Lead Soldering Temperature	T _L	260 (10 Sec.)	°C

Electrical Characteristics@25°C

Part Number	Stand-off Voltage V_{WM} (V) Max	Breakdown Voltage V_{BR} @1mA (V) Min	Clamping Voltage V_C @ 1 A (V) Max	Leakage Current I_R @ V_{WM} (uA) Max	Capacitance (f = 1MHz) C @ 0V (pF) Max	Temperature Coefficient of V_{BR} $a(V_{BR})$ mv/°C Max
SMDB03LCC	3.3	4	7	200	15	-5
SMDB05LCC	5.0	6	9.8	20	15	1
SMDB12LCC	12.0	13.3	19	1	15	8
SMDB15LCC	15.0	16.7	24	1	15	11
SMDB24LCC	24.0	26.7	43	1	15	28
SMDB36LCC	36.0	40	51	1	15	-

Ratings and Characteristics Curves

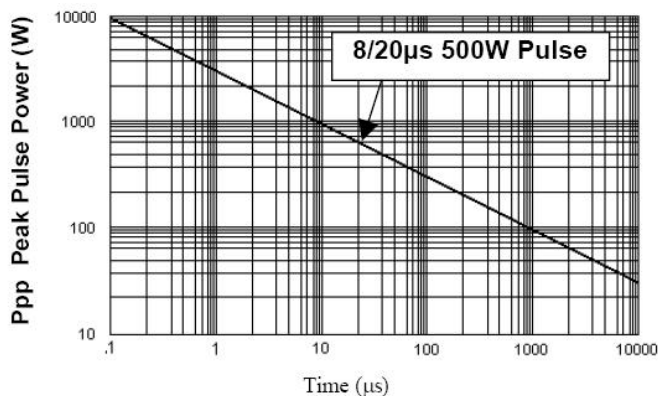


Figure 1. Peak Pulse Power Vs Pulse Time (μs)

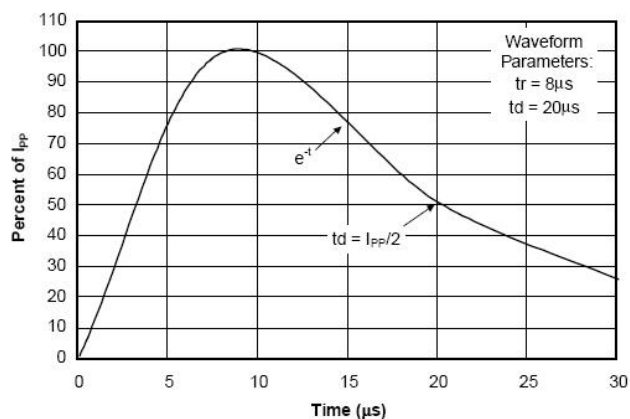


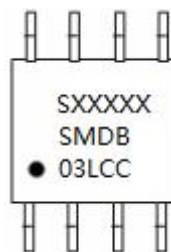
Figure 2. Pulse Wave Form

Ordering Information

Device	Package	Shipping
SMDB03LCC THRU SMDB36LCC	SO-8 (Pb-Free)	2500pcs / reel
SMDB03LCCCTR THRU SMDB36LCCCTR	SO-8 (Pb-Free)	2500pcs / 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



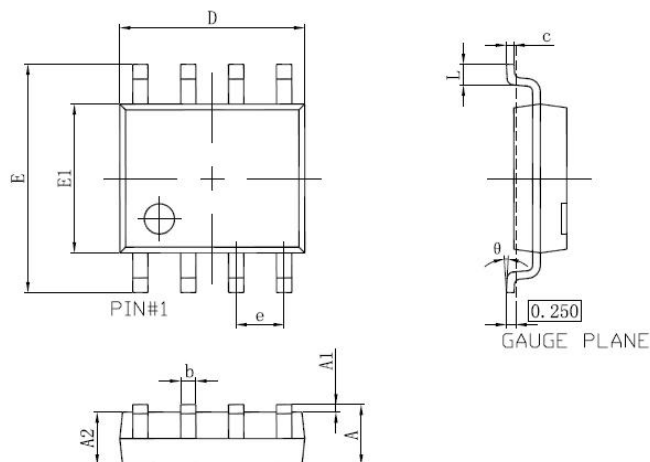
Where XXXXX is YYWWL

SMDB03LCC = Part Number
S = S
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

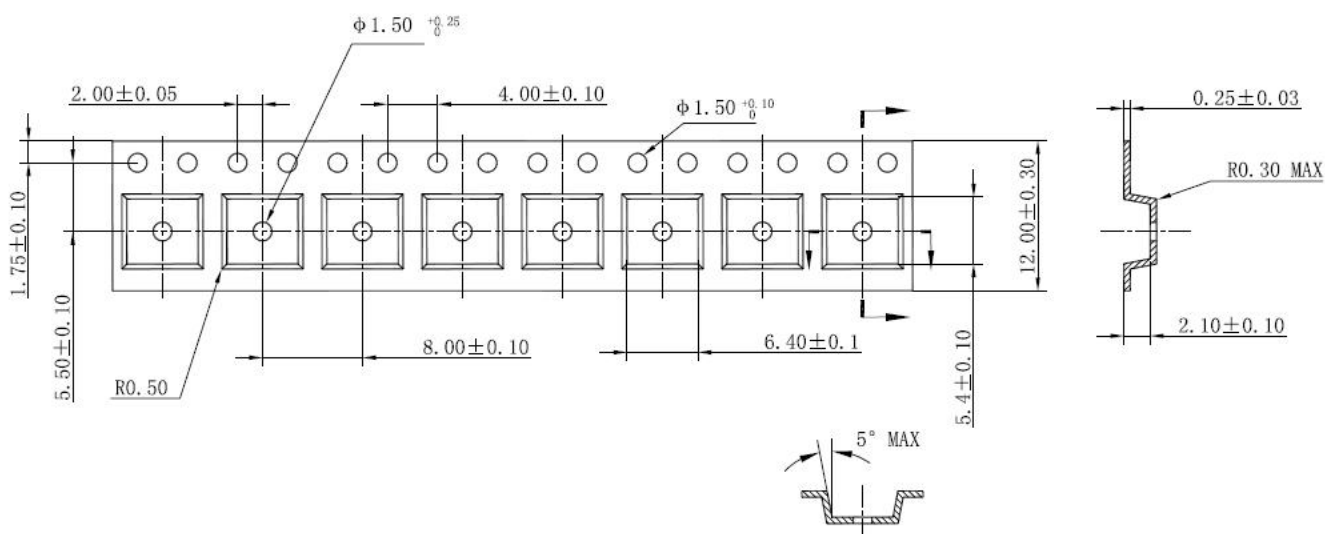
- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Mechanical Dimensions SO-8



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	1.350	1.800	0.053	0.071
A1	0.100	0.250	0.004	0.010
A2	1.350	1.750	0.053	0.069
b	0.306	0.510	0.012	0.020
c	0.150	0.300	0.006	0.012
D	4.720	5.120	0.186	0.202
e	1.140	1.400	0.045	0.055
E	5.700	6.300	0.224	0.248
E1	3.750	4.150	0.148	0.163
L	0.300	1.270	0.012	0.050
θ	0°	8°	0°	8°

Carrier Tape Specification SO-8



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