



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

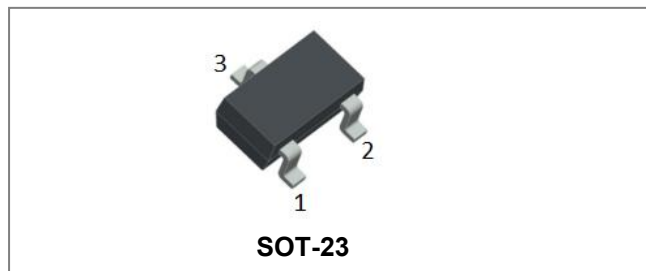
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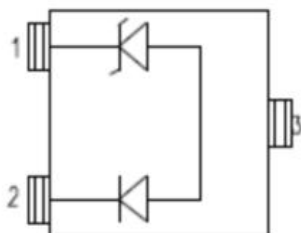
S23LC03 THRU S23LC24 TVS ARRAY



Description

The S23LCXX series of TVS array have been designed to provide unidirectional protection for sensitive electronics from damage due to voltage transients caused by electrostatic discharge (ESD), electrical fast transients (EFT), secondary lightning and other voltage-induced transient events. The device can be used to protect 1 unidirectional or interface line.

Schematic & Pin Configuration



Features

- Protects 3.3,5,12,15,24 V Components
- Unidirectional
- Ultra Low Capacitance 3 pF
- Low Leakage
- Provides Electrically Isolated Protection
- 300 W @ 8/20 us
- Protects 1 Line
- SOT-23 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

- SOT-23 Surface Mount Package
- Approximate Weight: 0.015 grams
- PIN #1 Indicator: DOT on top of package
- Packaging: Tape and Reel Per EIA 481

Application

- RS-232, RS-422 & RS-423
- Cellular Handsets & Accessories
- Universal Serial Bus (USB) Port Protection
- Portable Electronics
- LAN/WAN Equipment
- Wireless Bus Protection

Maximum Ratings@T_A=25°C unless otherwise specified

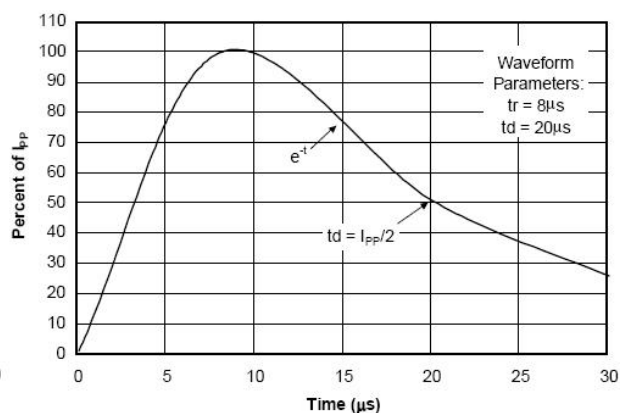
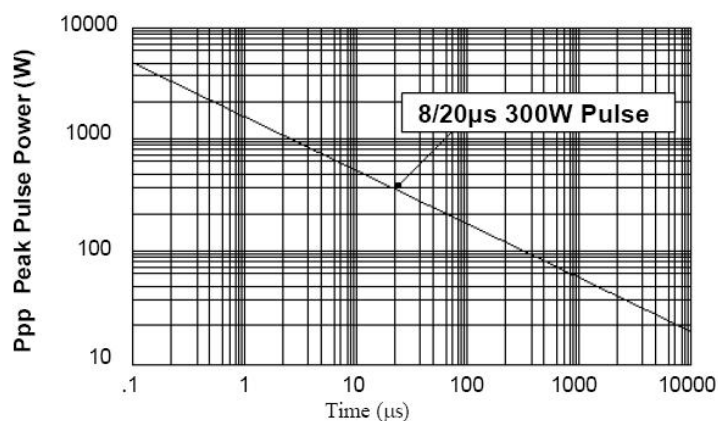
Parameter	Symbol	Value	Units
Peak Pulse Power, 8/20 μs Wave shape	P	300	W
Operating Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{stg}	-55 to +150	°C
Lead Soldering Temperature	T _L	260 (10 Sec.)	°C

Electrical Characteristics@T_A=25°C unless otherwise specified

Part Number	Marking Code	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
S23LC03	03L	3.3	4	8	200	3	-5
S23LC05	05L	5.0	6	10.8	20	3	3
S23LC12	12L	12.0	13.3	19	1	3	10
S23LC15	15L	15.0	16.7	25	1	3	13
S23LC24	24L	24.0	26.7	44	1	3	30

* Pulse width < 300 μs, duty cycle < 2%

Ratings and Characteristics Curves

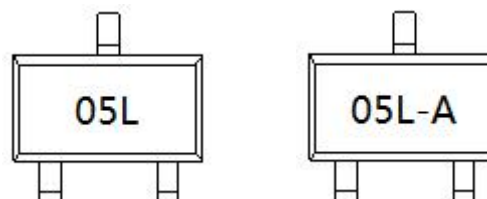


Ordering Information

Device	Package	Shipping
S23LC03 THRU S23LC36	SOT-23 (Pb-Free)	3000pcs / reel
S23LC03TR THRU S23LC36TR	SOT-23 (Pb-Free)	3000pcs / reel

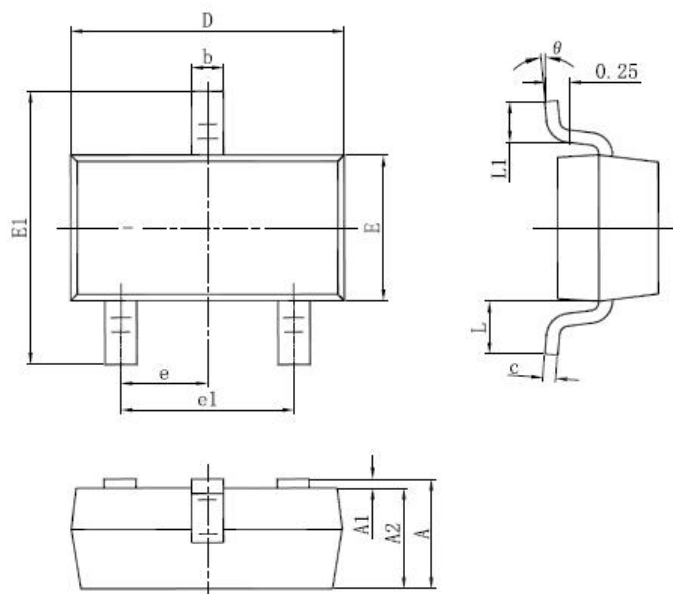
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



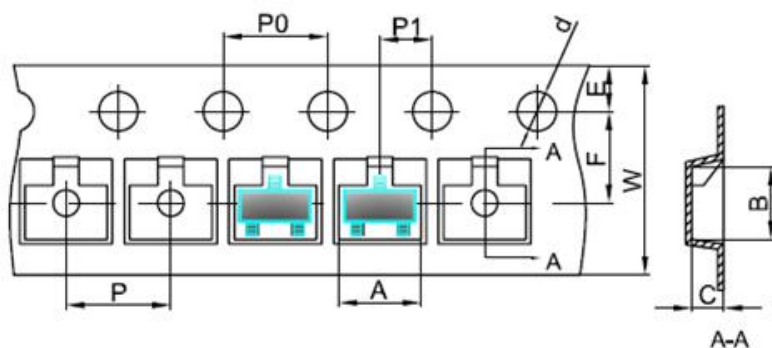
05L = Marking Code
A = AEC-Q101

Mechanical Dimensions SOT-23



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.890	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.076	0.170	0.003	0.007
D	2.650	3.050	0.104	0.120
E	1.190	1.400	0.047	0.055
E1	2.100	2.550	0.083	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.780	2.050	0.070	0.081
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Carrier Tape Specification SOT-23



SYMBOL	Millimeters	
	Min.	Max.
A	3.05	3.25
B	2.67	2.87
C	1.12	1.32
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

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