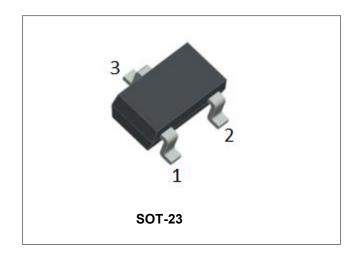






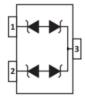
S23CC03 THRU S23CC24 TVS ARRAY



Features

- 350 W Peak Power Dissipation per Line (8/20 μsec Waveform)
- Low Reverse Leakage Current (< 100 nA)
- Low Capacitance High-Speed CAN Data Rates
- IEC Compatibility: IEC 61000-4-2 (ESD): Level 4, 30 kV
- IEC 61000-4-4 (EFT): 40 A 5/50 ns
- IEC 61000-4-5 (Lighting) 8.0 A (8/20 μs)
- Flammability Rating UL 94 V-0
- Small SMD plastic package
- "-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

Schematic & Pin Configuration



Application

- Industrial Control Networks Smart Distribution Systems (SDS®) DeviceNet™
- Automotive Networks Low and High-Speed CAN Fault Tolerant CAN

Maximum Ratings@T_A=25°C unless otherwise specified

Parameter	Symbol	Value	Units
Peak Pulse Power (tp=8/20 μ s)	Ppp	350	W
Operating Storage Temperature Range	Tstg	-55 to 150	°C
Operating Junction Temperature	TJ	-55 to 150	°C

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







Electrical Characteristics@TA=25°C unless otherwise specified

Part Name	Marking Code	Stand-off Voltage Vwm (v) Max	Breakdown Voltage V⊪ @1mA (V) Min	Breakdown Voltage V _{BR} @1mA (V) Max	Clamping Voltage Vc @ 1 A (V) Max	Clamping Voltage Vc @ IPP (V) Max	Peak Pulse Current (tp=8/20us) I _{PP} (A)	Leakage Current Ir @Vwm (uA) Max	Capacitanc e (f=1MHz) @0V (pF) Max
S23CC03	03E	3.3	5	6.9	8	26	15	5	200
S23CC05	05E	5	6.8	8.2	10	28	13	1	150
S23CC12	12E	12	13.8	16.7	20	37	10	0.1	60
S23CC15	15E	15	17.1	20.3	25	44	8	0.1	50
S23CC24	24E	24	26.2	32	40	59	6	0.1	30

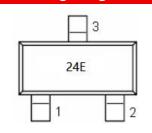
^{*} Pulse width < 300 μ s, duty cycle < 2%

Ordering Information

Device	Package	Shipping
S23CC03 THRU S23CC24	SOT-23 (Pb-Free)	3000pcs / reel
S23CC03TR THRU S23CC24TR	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.

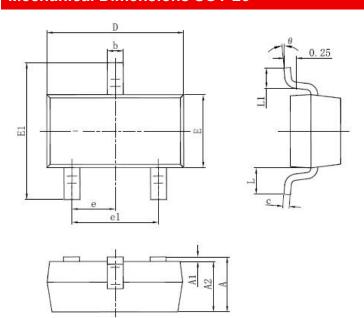
Marking Diagram



Where 24E is S23CC24

24E = Marking code

Mechanical Dimensions SOT-23



OVMDOL	Millin	neters	Inches		
SYMBOL	MIN.	MAX.	MIN.	MAX.	
Α	0.900	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	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
E	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
е	0.950 TYP.		0.037 TYP.		
e1	1.800	2.000	0.071	0.079	
L	0.550 REF.		0.022 REF.		
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	

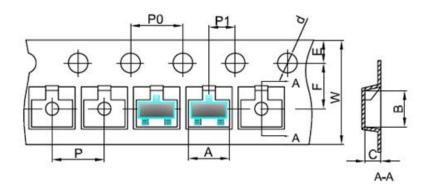
- China Germany Korea Singapore United States •
- http://www.smc-diodes.com sales@ smc-diodes.com •







Carrier Tape Specification SOT-23



SYMBOL	Millimeters			
STWIDOL	Min.	Max.		
Α	3.05	3.25		
В	2.67	2.87		
C	1.12	1.32		
d	1.40	1.60		
Ш	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		







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..