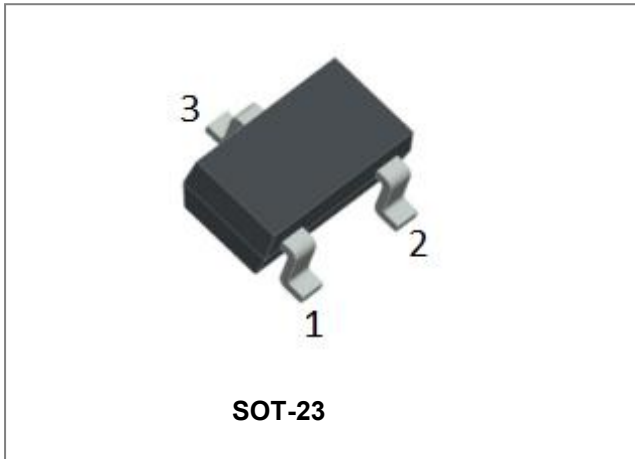


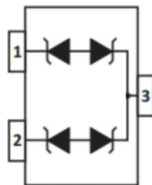
## S23CC03 THRU S23CC24 TVS ARRAY



### Features

- 350 W Peak Power Dissipation per Line (8/20  $\mu$ sec 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  $\mu$ s)
- 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<sub>A</sub>=25°C unless otherwise specified

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

**Electrical Characteristics @ $T_A=25^\circ\text{C}$  unless otherwise specified**

Part Name	Marking Code	Stand-off Voltage $V_{WM}$ (V) Max	Breakdown Voltage $V_{BR}$ @1mA (V) Min	Breakdown Voltage $V_{BR}$ @1mA (V) Max	Clamping Voltage $V_C$ @ 1 A (V) Max	Clamping Voltage $V_C$ @ $I_{PP}$ (V) Max	Peak Pulse Current (tp=8/20us) $I_{PP}$ (A)	Leakage Current $I_r$ @ $V_{WM}$ (uA) Max	Capacitance (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	5	0.1	50
S23CC15	15E	15	17.1	20.3	22	44	5	0.1	50
S23CC24	24E	24	26.2	32	32	40/48	5/8	0.1	30

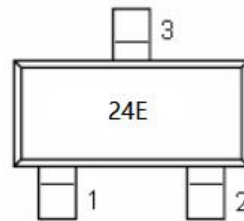
\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

**Ordering Information**

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

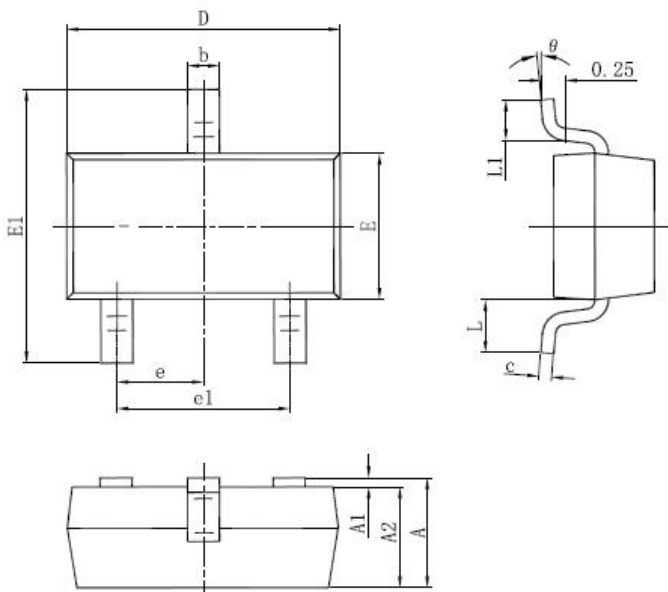
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



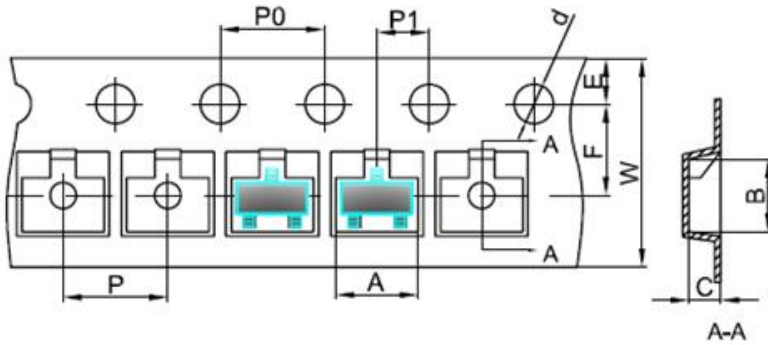
Where 24E is S23CC24  
24E = Marking code

**Mechanical Dimensions SOT-23**



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	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
c	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
e	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
$\theta$	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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