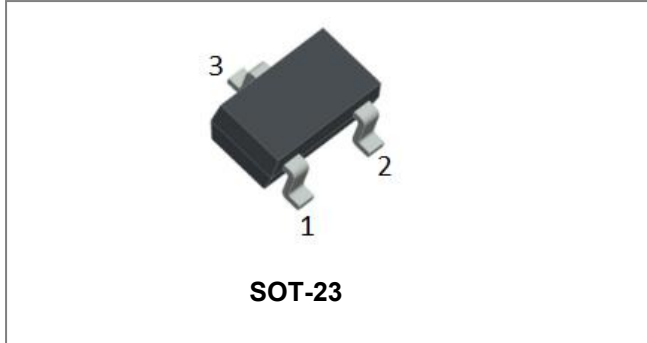


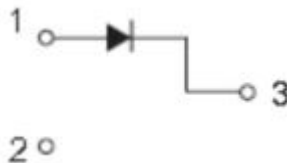
SMBD001030 SCHOTTKY RECTIFIER



Features

- Schottky Barrier Chip
- Extremely Low Minority Carrier Lifetime
- Very Low Capacitance
- Low Reverse Leakage
- High-efficiency
- 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



Mechanical Characteristics

- Case: SOT-23, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Mounting Position: Any
- Weight: 0.008g

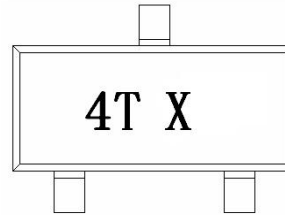
Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | Value | Units |
|---|-------------|---|------------------|
| Peak Reverse Voltage | V_R | 30 | V |
| Average Rectified Output Current | $I_{F(AV)}$ | 0.01 | A |
| Forward Voltage | V_{FM} | @ $I_F = 10\text{mA}, T_A = 25^\circ\text{C}$ @ $I_F = 10\text{mA}, T_A = 125^\circ\text{C}$ | 0.70 0.45 |
| Peak Reverse Current | | @ $V_R = 25\text{V}, T_A = 25^\circ\text{C}$ | 0.2 |
| Total Device Dissipation | PF | @ $T_A = 25^\circ\text{C}$ 200 | mW |
| Total Capacitance ($V_R = 15\text{V}, f = 1.0\text{MHz}$) | CT | 2 | pF |
| Operating Junction Temperature Range | T_J | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

Ordering Information

| Device | Package | Shipping |
|------------|---------------------|----------------|
| SMBD001030 | SOT-23 (Pb-Free) | 3000pcs / reel |

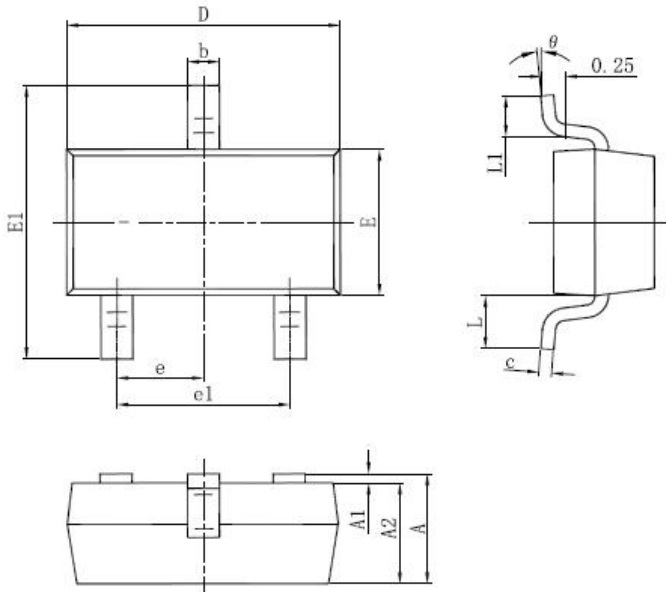
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram


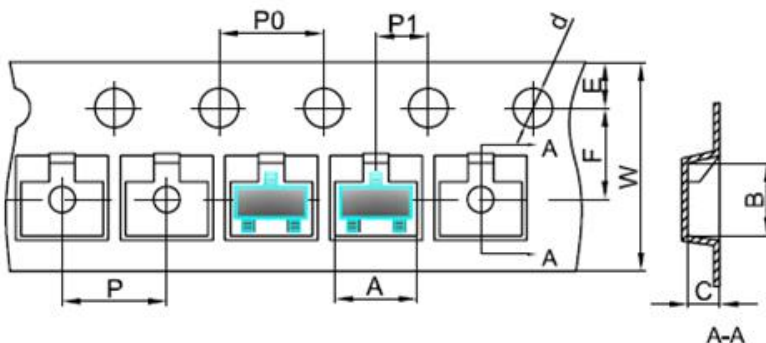
Where X is Date Code

4T = Marking code

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

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 |

Technical Data
Data Sheet N1963, Rev. A



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