# THE DATASHEET OF

# SMBD001030TR

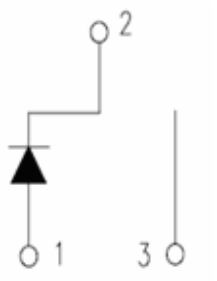
Technical Data
Data Sheet N1057, Rev. -

*Green Products*

# SMBD001030 SCHOTTKY RECTIFIER

## Features:

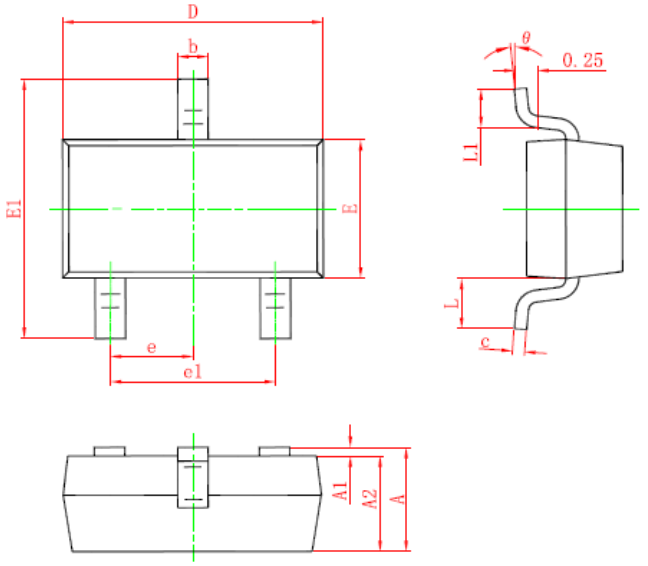
- Schottky Barrier Chip
- Extremely Low Minority Carrier Lifetime
- Very Low Capacitance
- Low Reverse Leakage
- High-efficiency
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request




## Mechanical Data:

- Case: Molded Plastic
- SOT-23 Surface Mount Package
- Approximate Weight: 0.015 grams
- Packaging: Tape and Reel

## Mechanical Dimensions: In mm / Inches




| Symbol | Dimensions In Millimeters | | Dimensions In 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 |
| θ | 0° | 8° | 0° | 8° |

**SOT-23(CJ)**

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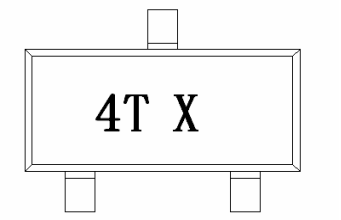
## Marking Diagram:




Where X is Date Code

4T = Part Name

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

## 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.

## Maximum Ratings and Electrical Characteristics @$T_A$=25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|---|---|---|---|
| Peak Reverse Voltage | $V_R$ | 30 | V |
| Average Rectified Output Current | $I_{F(AV)}$ | 0.01 | A |
| Forward Voltage @$I_F$ = 10mA,$T_A$ = 25°C<br>@$I_F$ = 10mA,$T_A$ =125°C | $V_{FM}$ | 0.70<br>0.45 | V |
| Peak Reverse Current @ $V_R$=25V,$T_A$ = 25°C | $I_{RM}$ | 0.2 | μA |
| Total Device Dissipation @ TA = 25°C | $P_F$ | 200 | mW |
| Total Capacitance (VR = 15 V, f = 1.0 MHz) | $C_T$ | 2 | pF |
| Operating Junction Temperature Range | $T_J$ | -55 to +125 | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | °C |
| Case Style | SOT-23 | | |

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