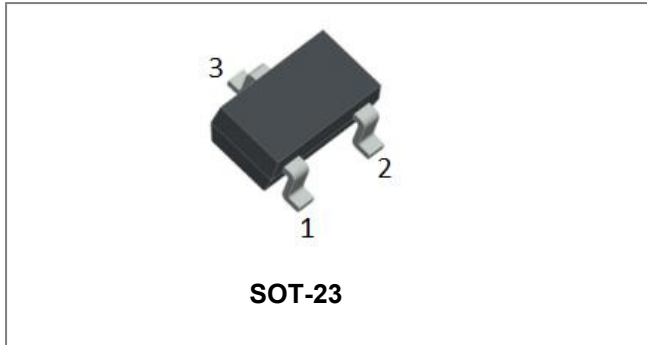




**THE DATASHEET OF  
SMBD001030**



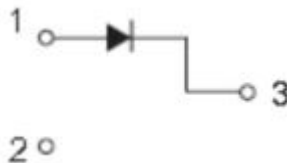
## SMBD001030 SCHOTTKY RECTIFIER



### 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

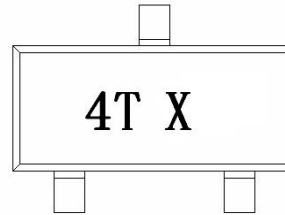
### Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Units
Peak Reverse Voltage	$V_R$	30	V
Average Rectified Output Current	$I_{F(AV)}$	0.01	A
Forward Voltage	$V_{FM}$	@ $I_F = 10\text{mA}, T_A = 25^\circ\text{C}$	0.70
		@ $I_F = 10\text{mA}, T_A = 125^\circ\text{C}$	0.45
Peak Reverse Current	$I_{RM}$	0.2	$\mu\text{A}$
Total Device Dissipation	PF	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

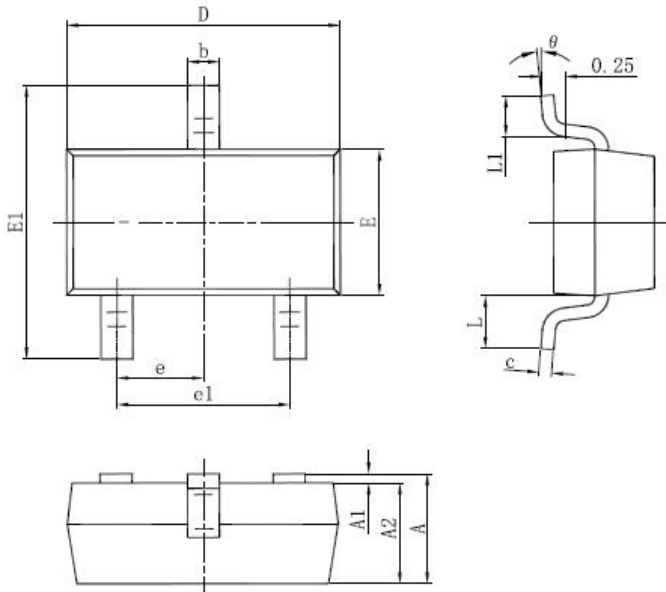
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**


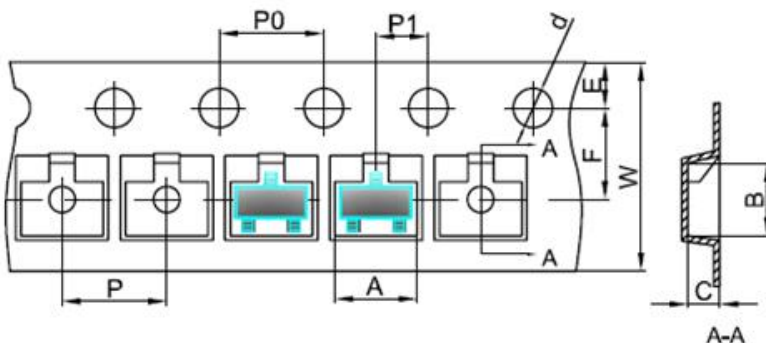
Where X is Date Code

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





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