Lastinght

# BAS19

## SWITCHING DIODE

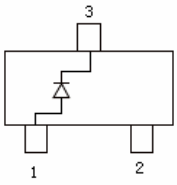
### FEATURES

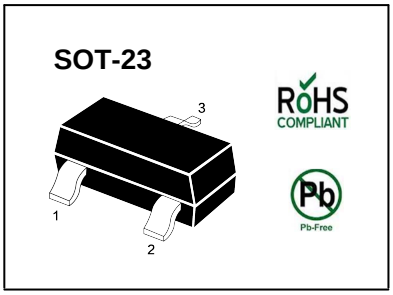
Fast Switching Speed

Surface Mount Package Ideally Suited for Automatic Insertion

For General Purpose Switching Applications

High Conductance




**Marking: JP**

### Maximum Ratings @$T_A$=25℃

| Parameter | Symbol | Limits | Unit |
|---|---|---|---|
| Non-Repetitive Peak reverse voltage<br>DC Blocking Voltage | $V_{RM}$<br>$V_R$ | 100 | V |
| Average Rectified Output Current | $I_O$ | 200 | mA |
| Power Dissipation | Pd | 250 | mW |
| Thermal Resistance. Junction to Ambient Air | $R_{\theta}JA$ | 500 | ℃/W |
| Junction temperature | $T_J$ | 150 | ℃ |
| Storage temperature range | $T_{STG}$ | -65-150 | ℃ |

### ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|---|---|---|---|---|---|
| Reverse breakdown voltage | $V_{(BR)R}$ | $I_R$= 100μA | 100 | | V |
| Reverse voltage leakage current | $I_R$ | VR=100V | | 0.1 | μA |
| Forward voltage | $V_F$ | $I_F$=100mA<br>$I_F$=200mA | | 1<br>1.25 | V |
| Junction Capacitance | $C_J$ | $V_R$=0V, f=1MHz | | 5 | pF |
| Reveres recovery time | $t_{rr}$ | $I_F$=$I_R$=30mA,$I_{rr}$=0.1×$I_R$ | | 50 | nS |

**Typical Characteristics**

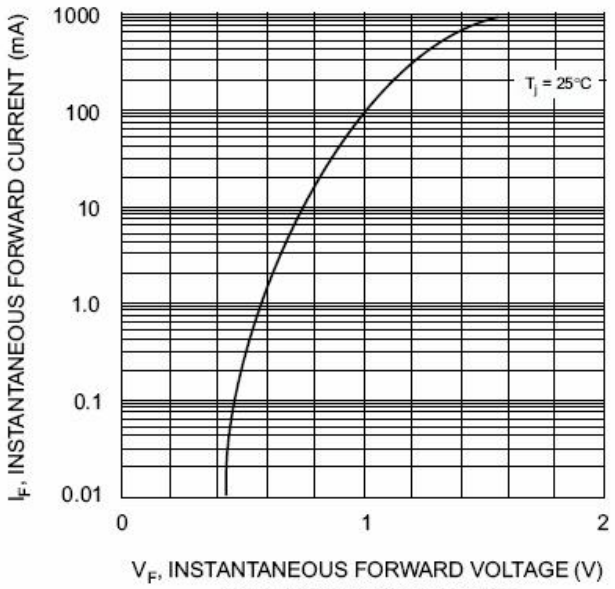



Fig. 1 Forward Characteristics

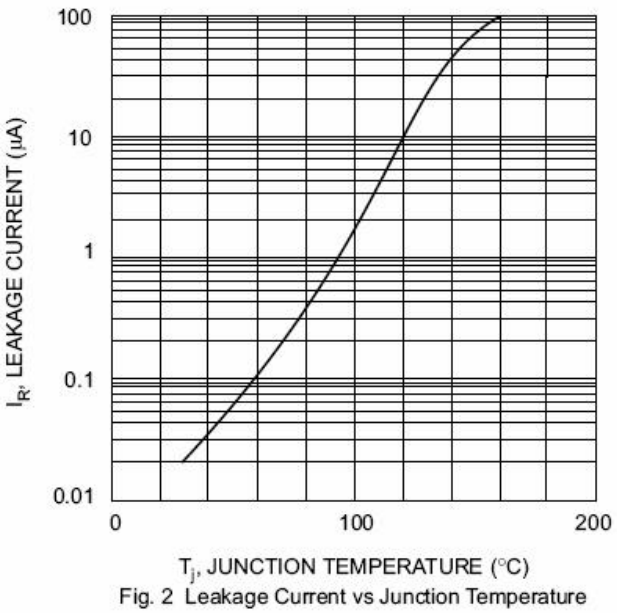
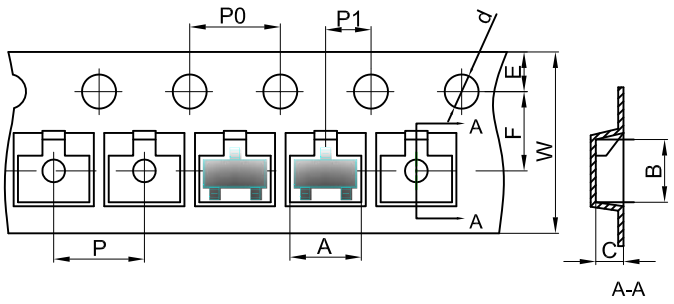



Fig. 2 Leakage Current vs Junction Temperature

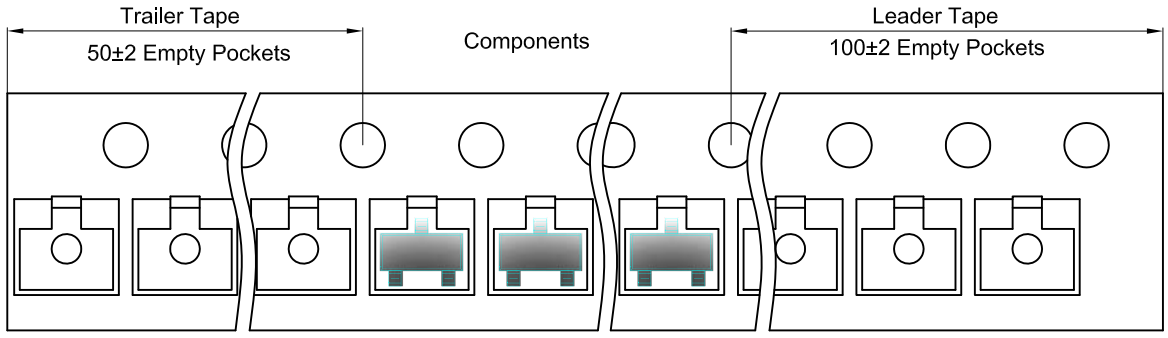
## SOT-23 Tape and Reel

### SOT-23 Embossed Carrier Tape

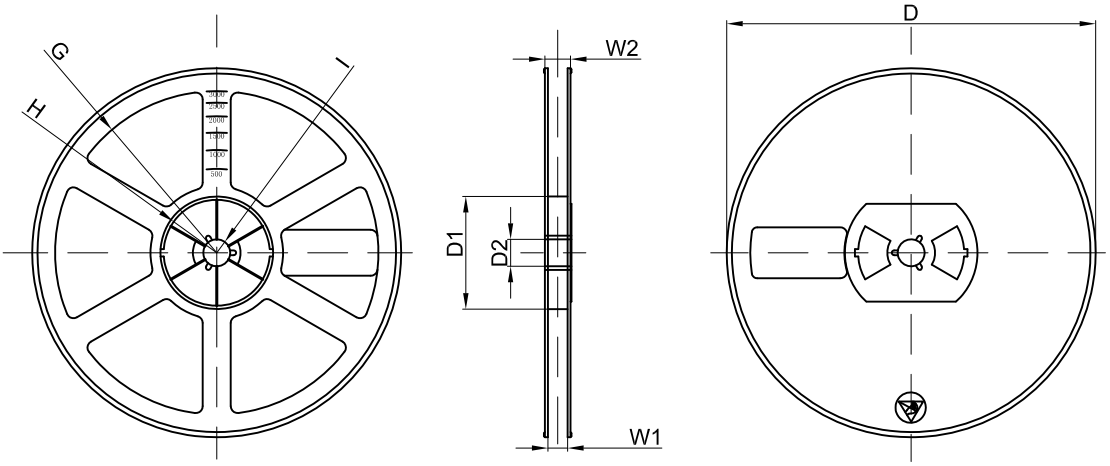



| Dimensions are in millimeter | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Pkg type | A | B | C | d | E | F | P0 | P | P1 | W |
| SOT-23 | 3.15 | 2.77 | 1.22 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

### SOT-23 Tape Leader and Trailer

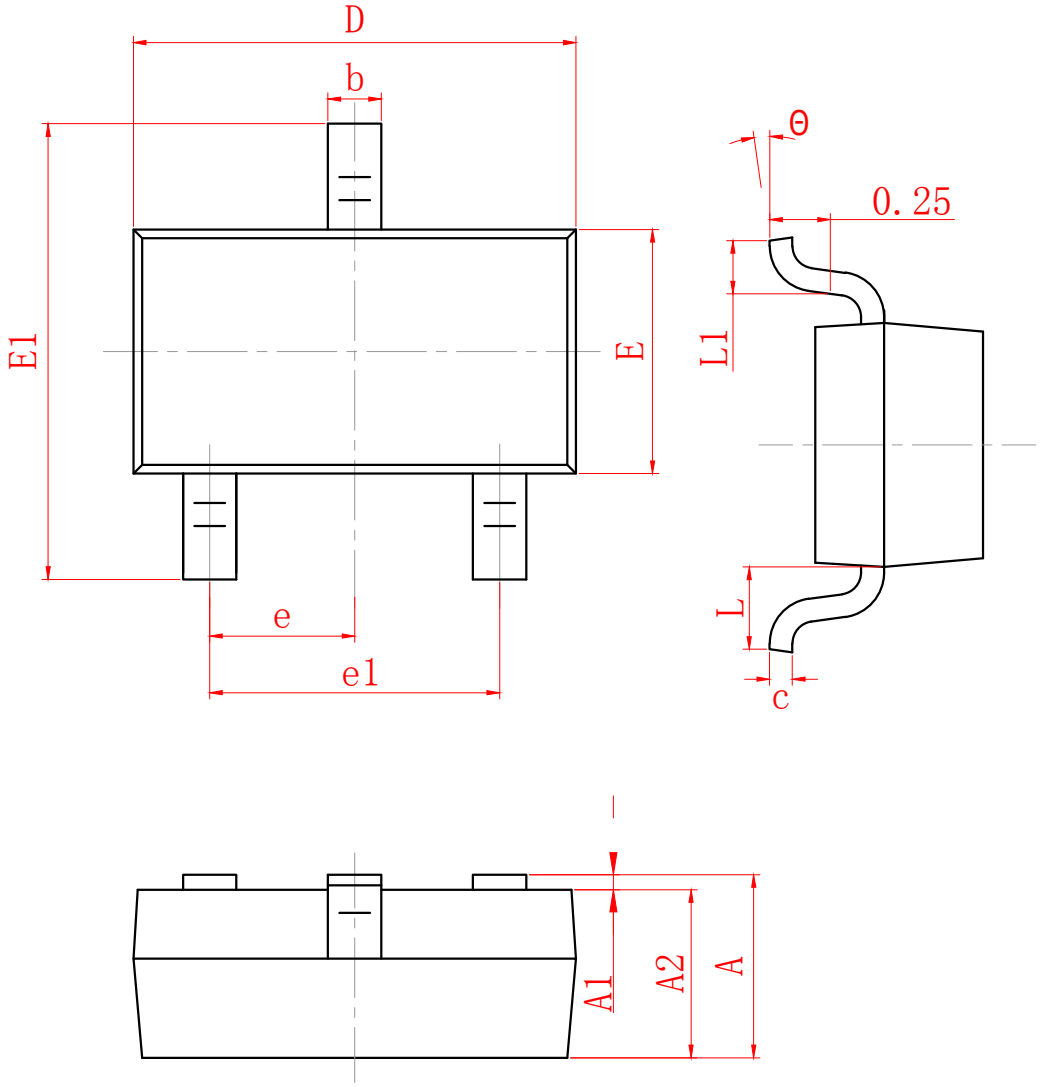



### SOT-23 Reel




| Dimensions are in millimeter | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Reel Option | D | D1 | D2 | G | H | I | W1 | W2 |
| 7"Dia | Ø178.00 | 54.40 | 13.00 | R78.00 | R25.60 | R6.50 | 9.50 | 12.30 |

| REEL | Reel Size | Box | Box Size(mm) | Carton | Carton Size(mm) | G.W.(kg) |
|---|---|---|---|---|---|---|
| 3000 pcs | 7 inch | 45,000 pcs | 203×203×195 | 180,000 pcs | 438×438×220 | |




| SYMBOL | MILLIMETER | |
|---|---|---|
| | MIN | MAX |
| A | 0.900 | 1.150 |
| A1 | 0.000 | 0.100 |
| A2 | 0.900 | 1.050 |
| b | 0.300 | 0.500 |
| c | 0.080 | 0.150 |
| D | 2.800 | 3.000 |
| E | 1.200 | 1.400 |
| E1 | 2.250 | 2.550 |
| e | 0.950 TYP | |
| e1 | 1.800 | 2.000 |
| L | 0.550 REF | |
| L1 | 0.300 | 0.500 |
| θ | 0° | 8° |

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