

#### **FEATURES**

- Peak Forward Current: I<sub>FM</sub>=350 mA
- Power Dissipation of 150mw



## **Package Marking and Ordering Information**

| Product ID | Pack    | Pack Marking |      |
|------------|---------|--------------|------|
| B5819WT    | SOD-523 |              | 3000 |



## MAXIMUM RATINGS (Ta=25 unless otherwise noted)

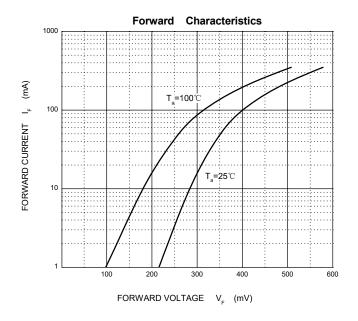
| Symbol              | Parameter   | Value    | Unit       |  |  |
|---------------------|---|----------|------------|--|--|
| $V_{RRM}$           | Peak Repetitive Reverse Voltage                   |          |            |  |  |
| V <sub>RWM</sub>    | Working Peak Reverse Voltage                      | 40       | V          |  |  |
| V <sub>R</sub>      | DC Blocking Voltage                               |          |            |  |  |
| V <sub>R(RMS)</sub> | RMS Reverse Voltage                               | 28       | V          |  |  |
| I <sub>FM</sub>     | Forward Continuous Current                        | 350      | mA         |  |  |
| I <sub>FSM</sub>    | Non-Repetitive Peak Forward Surge Current@t=8.3ms | 2        | Α          |  |  |
| P <sub>D</sub>      | Power Dissipation                                 | 150      | mW         |  |  |
| Roja                | Thermal Resistance From Junction To Ambient       | 300      | °C/W       |  |  |
| Tj                  | Junction Temperature                              | 125      | °C         |  |  |
| T <sub>stg</sub>    | Storage Temperature                               | -55~+150 | $^{\circ}$ |  |  |

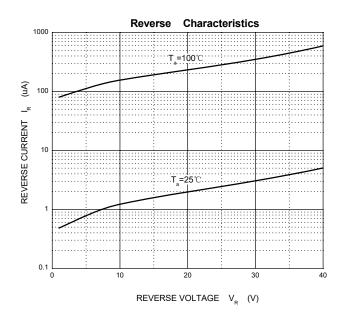
#### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25 unless otherwise specified)

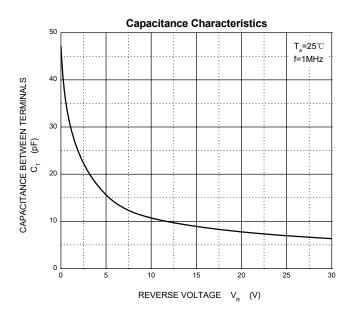
| Parameter             | Symbol           | Test conditions  | Min | Тур  | Max  | Unit |  |
|-----------------------|------------------|--|-----|------|------|------|--|
| Reverse voltage       | $V_{(BR)}$       | I <sub>R</sub> =100μA  | 40  |      |      | V    |  |
| Reverse current       | I <sub>R</sub>   | V <sub>R</sub> =30V  |     |      | 5    | μA   |  |
|                       |                  | V <sub>R</sub> =20V  |     |      | 2    |      |  |
|                       |                  | V <sub>R</sub> =10V  |     |      | 1    |      |  |
| Forward voltage       | V                | I <sub>F</sub> =1mA  |     | 0.27 |      | V    |  |
|                       |                  | I <sub>F</sub> =5mA  |     | 0.32 |      |      |  |
|                       | $V_{F}$          | I <sub>F</sub> =20mA   |     |      | 0.37 |      |  |
|                       |                  | I <sub>F</sub> =200mA  |     |      | 0.6  |      |  |
| Total capacitance     | C <sub>tot</sub> | V <sub>R</sub> =0V,f=1MHz  |     | 50   |      | pF   |  |
| Reverse recovery time | t <sub>rr</sub>  | I <sub>F</sub> = I <sub>R</sub> =200mA, I <sub>rr</sub> =0.1×I <sub>R</sub> , R <sub>L</sub> =100Ω |     | 10   |      | ns   |  |

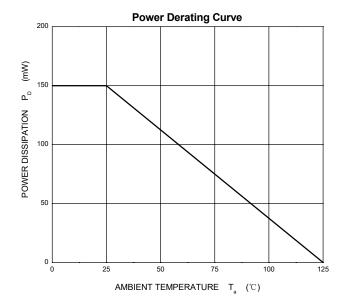


## **Typical Characteristics**



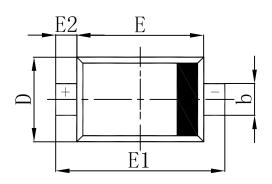


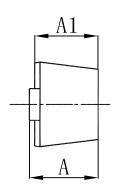


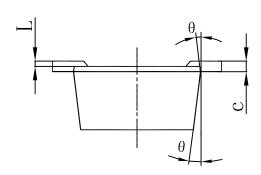




# **SOD-523 Package Outline Dimensions**







| Sym ol | imensions In Millimeters |       | imensions In Inches |       |
|--------|--------------------------|-------|---------------------|-------|
|        | Min                      | Max   | Min                 | Max   |
| Α      | 0.510                    | 0.770 | 0.020               | 0.031 |
| A1     | 0.500                    | 0.700 | 0.020               | 0.028 |
| b      | 0.250                    | 0.350 | 0.010               | 0.014 |
| С      | 0.080                    | 0.150 | 0.003               | 0.006 |
| D      | 0.750                    | 0.850 | 0.030               | 0.033 |
| E      | 1.100                    | 1.300 | 0.043               | 0.051 |
| E1     | 1.500                    | 1.700 | 0.059               | 0.067 |
| E2     | 0.200 REF                |       | 0.008 REF           |       |
| L      | 0.010                    | 0.070 | 0.001               | 0.003 |
| θ      | 7° REF                   |       | 7° REF              |       |



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