



## Features

- Peak Forward Current:  $I_{FM}=350\text{mA}$
- Power Dissipation of 150mW

## Package Marking and Ordering Information

| Product ID      | Pack    | Marking | Qty(PCS) |
|-----------------|---------|---------|----------|
| RB540SM-40FHT2R | SOD-523 | S4      | 3000     |



SOD-523



## Maximum Ratings (Ta=25°C unless otherwise noted)

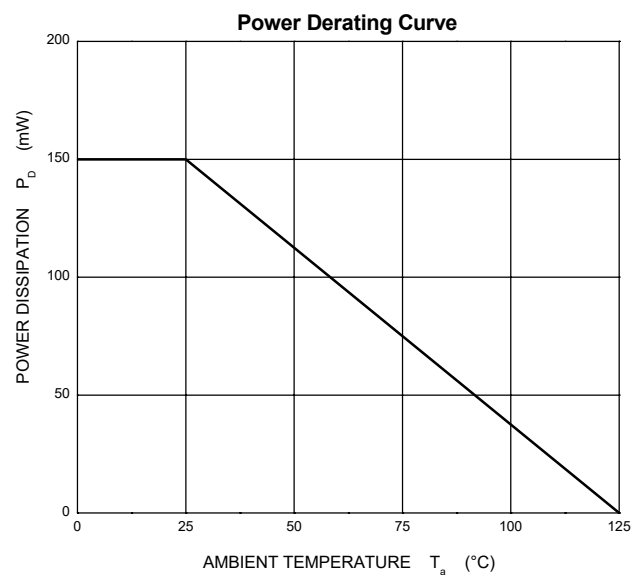
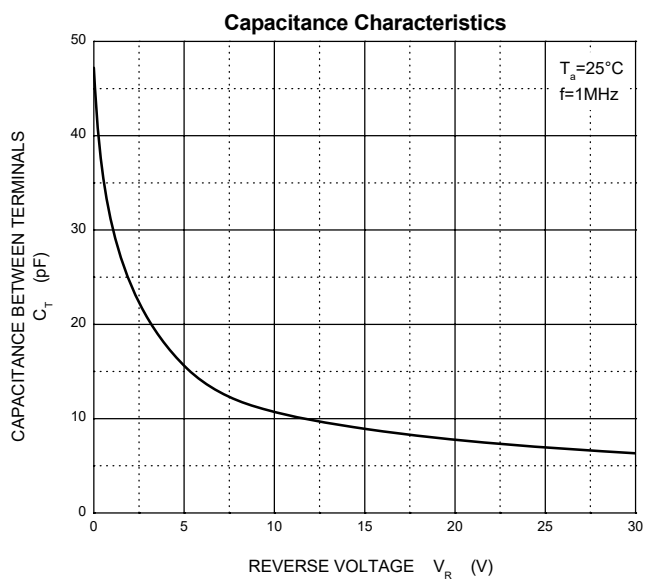
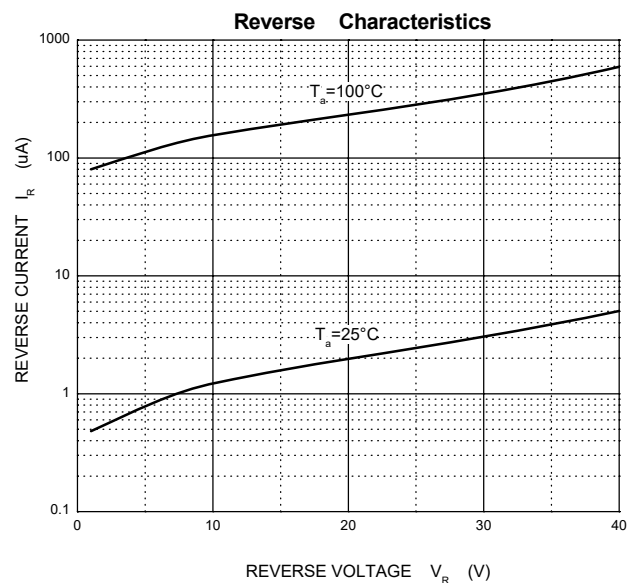
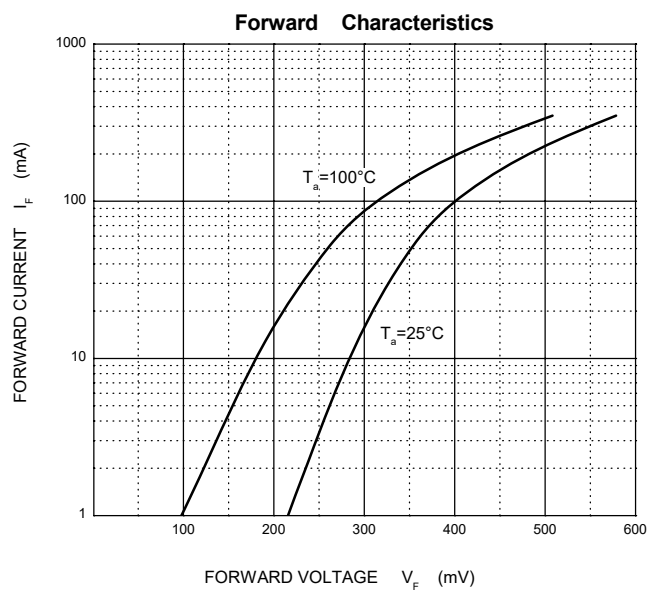
| Symbol          | Parameter                                         | Value    | Unit |
|-----------------|---------------------------------------------------|----------|------|
| $V_{RRM}$       | Peak Repetitive Reverse Voltage                   | 40       | V    |
| $V_{RWM}$       | Working Peak Reverse Voltage                      |          |      |
| $V_R$           | DC Blocking Voltage                               |          |      |
| $V_{R(RMS)}$    | RMS Reverse Voltage                               | 28       | V    |
| $I_{FM}$        | Forward Continuous Current                        | 350      | mA   |
| $I_{FSM}$       | Non-Repetitive Peak Forward Surge Current@t=8.3ms | 2        | A    |
| $P_D$           | Power Dissipation                                 | 150      | mW   |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient       | 667      | °C/W |
| $T_j$           | Junction Temperature                              | 125      | °C   |
| $T_{stg}$       | Storage Temperature                               | -55~+150 | °C   |

## Electrical Characteristics (Ta=25°C unless otherwise specified)

| Parameter             | Symbol     | Test conditions                                             | Min | Typ  | Max  | Unit          |
|-----------------------|------------|-------------------------------------------------------------|-----|------|------|---------------|
| Reverse voltage       | $V_{(BR)}$ | $I_R=100\mu\text{A}$                                        | 40  |      |      | V             |
| Reverse current       | $I_R$      | $V_R=30\text{V}$                                            |     |      | 5    | $\mu\text{A}$ |
|                       |            | $V_R=20\text{V}$                                            |     |      | 2    |               |
|                       |            | $V_R=10\text{V}$                                            |     |      | 1    |               |
| Forward voltage       | $V_F$      | $I_F=1\text{mA}$                                            |     | 0.27 |      | V             |
|                       |            | $I_F=5\text{mA}$                                            |     | 0.32 |      |               |
|                       |            | $I_F=20\text{mA}$                                           |     |      | 0.37 |               |
|                       |            | $I_F=200\text{mA}$                                          |     |      | 0.6  |               |
| Total capacitance     | $C_{tot}$  | $V_R=0\text{V}, f=1\text{MHz}$                              |     | 50   |      | pF            |
| Reverse recovery time | $t_{rr}$   | $I_F=I_R=200\text{mA}, I_{rr}=0.1\times I_R, R_L=100\Omega$ |     | 10   |      | ns            |

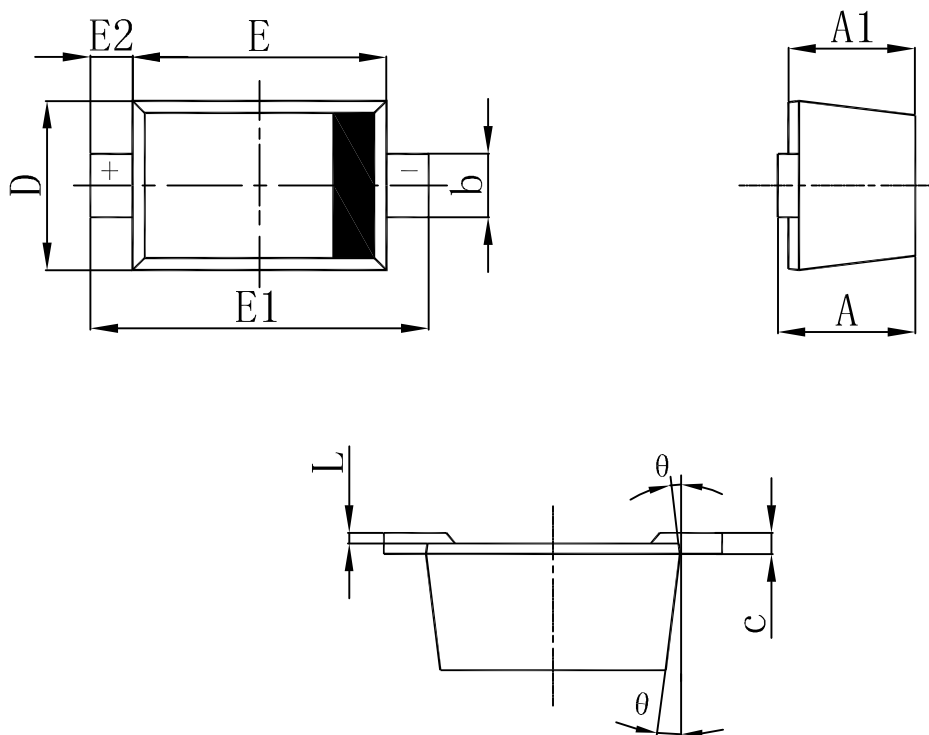


## Typical Characteristics





### SOD-523 Package Outline Dimensions



| Symbol   | imensions In Millimeters |       | imensions In Inches |       |
|----------|--------------------------|-------|---------------------|-------|
|          | Min                      | Max   | Min                 | Max   |
| A        | 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 |
| c        | 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 |
| $\theta$ | 7° REF                   |       | 7° REF              |       |



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