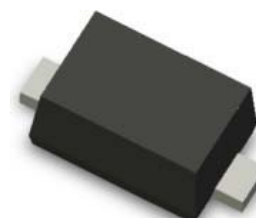
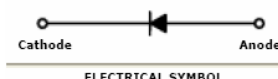


# RB520S30

## Schottky Barrier Diodes

- Low Forward Voltage Drop
- Flat Lead, Surface Mount Device at 0.60mm Height
- Extremely Small Outline Plastic Package SOD523F
- Moisture Level Sensitivity 1
- Pb-free Version and RoHS Compliant
- Matte Tin (Sn) Lead Finish
- Green Mold Compound



SOD-523F  
Band Indicates Cathode\*  
Marking: 1B(520S)

### Absolute Maximum Ratings\* $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol      | Parameter                            | Value       | Units            |
|-------------|--------------------------------------|-------------|------------------|
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage   | 30          | V                |
| $I_{F(AV)}$ | Average Rectified Forward Current    | 200         | mA               |
| $T_J$       | Operating Junction Temperature Range | -55 to +125 | $^\circ\text{C}$ |
| $T_{STG}$   | Storage Temperature Range            | -55 to +125 | $^\circ\text{C}$ |

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

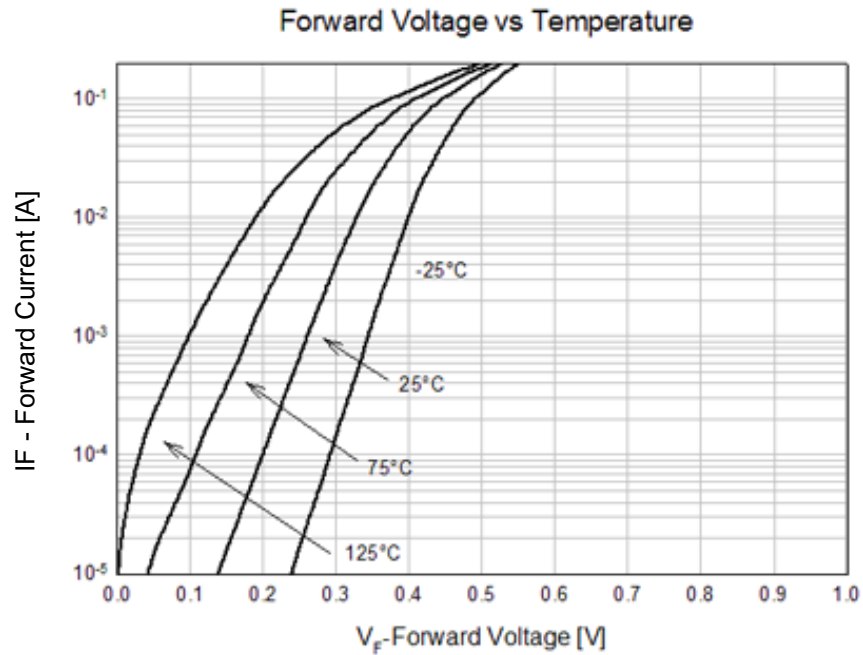
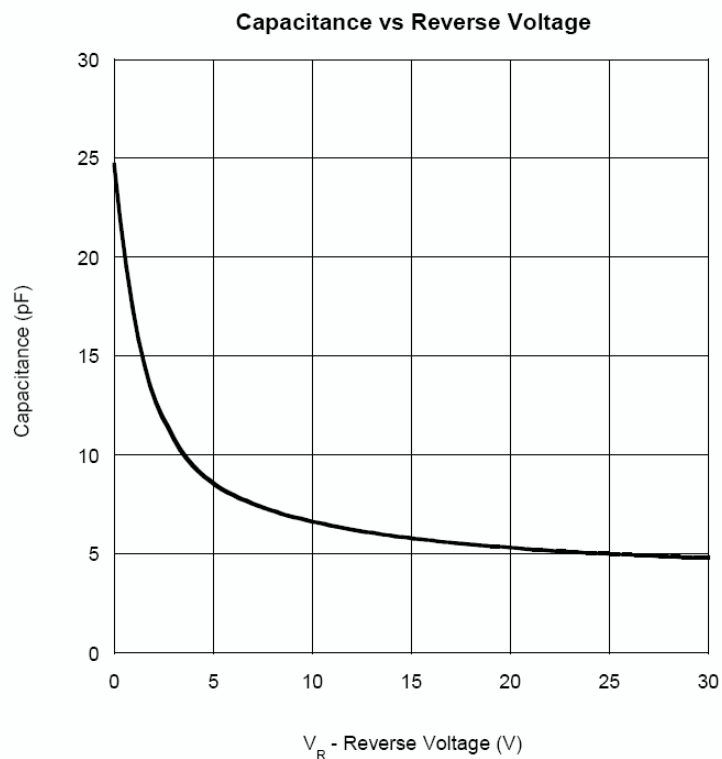
| Symbol          | Parameter                                          | Value | Unit               |
|-----------------|----------------------------------------------------|-------|--------------------|
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient            | 500   | $^\circ\text{C/W}$ |
| $P_D$           | Total Device Dissipation( $T_C=25^\circ\text{C}$ ) | 200   | mW                 |

\*Device mounted on FR-4 PCB minimum land pad.

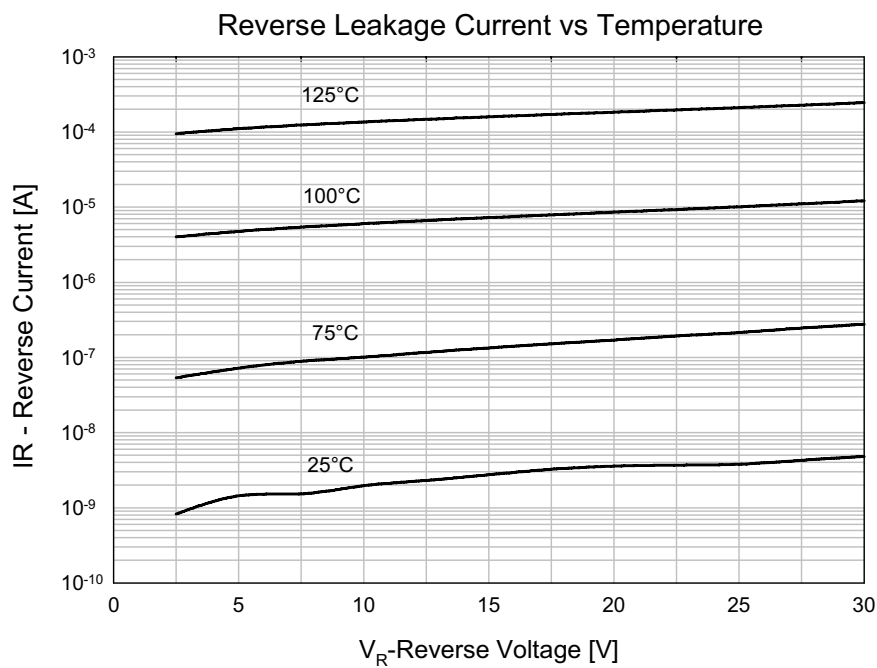
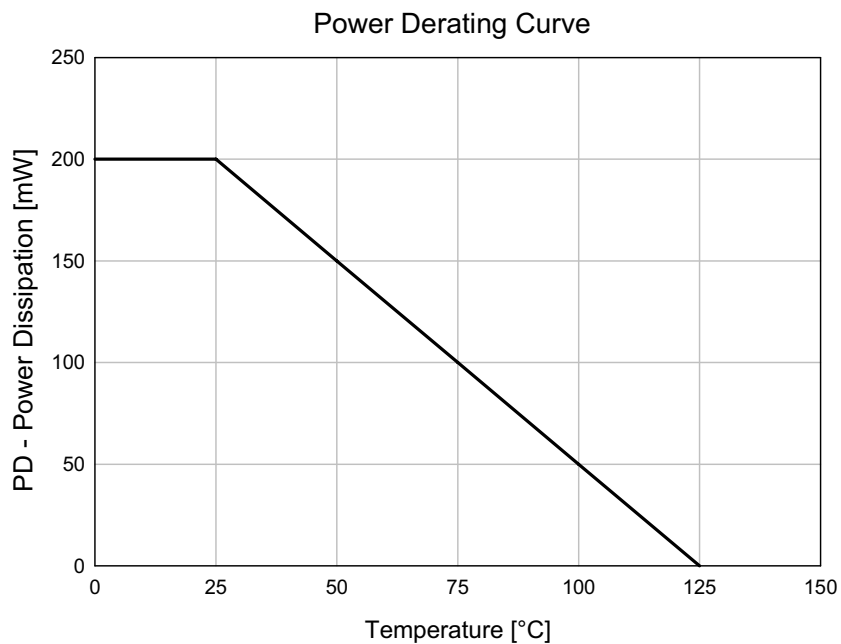
### Electrical Characteristics\* $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter         | Test Conditions         | Min | Typ | Max | Units         |
|--------|-------------------|-------------------------|-----|-----|-----|---------------|
| $BV_R$ | Breakdown Voltage | $I_R = 500 \mu\text{A}$ | 30  |     |     | V             |
| $I_R$  | Reverse Current   | $V_R = 10 \text{ V}$    |     |     | 1   | $\mu\text{A}$ |
| $V_F$  | Forward Voltage   | $I_F = 200 \text{ mA}$  |     |     | 0.6 | V             |

## Typical Performance Characteristics

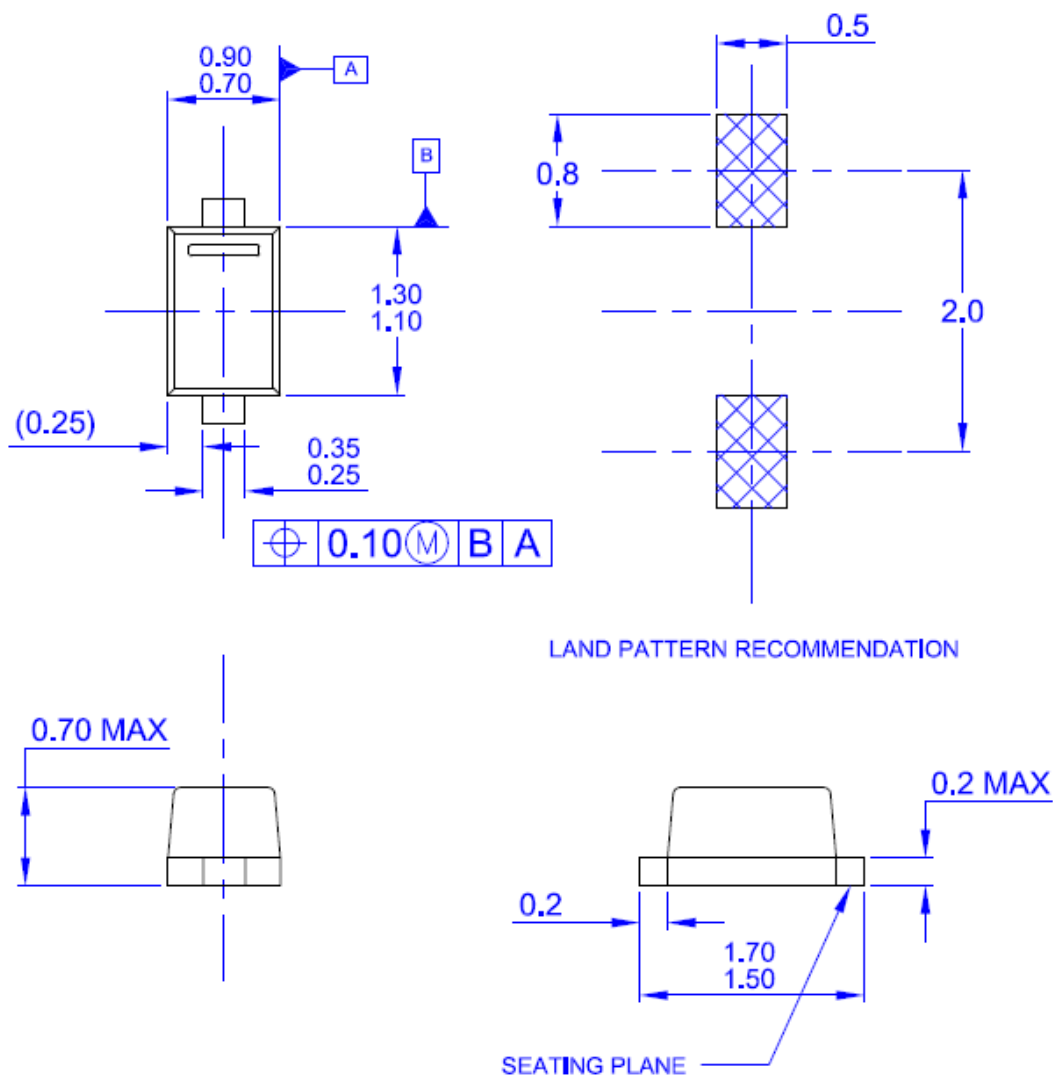


## Typical Performance Characteristics



## Package Dimension

## SOD-523F



## NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE REFERENCE: THIS PACKAGE OUTLINE CONFORMS TO JEITA SC-79.
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) DRAWING CONFORMS TO ASME Y14.5M - 1994
- D) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.
- E) LANDPATTERN RECOMMENDATION IS BASED ON IPC7351A STANDARD SOD1609X65M.
- F) DRAWING NUMBER AND REVISION: MKT-SOD523F1rev1



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| Build it Now <sup>™</sup>            | Green FPS <sup>™</sup> e-Series <sup>™</sup>                                                   | POWEREDGE <sup>®</sup>                 | SyncFET <sup>™</sup>             |
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| FRFET <sup>®</sup>                   | Power220 <sup>®</sup>                                                                          | SuperSOT <sup>™</sup> -6               |                                  |
| Global Power Resource <sup>SM</sup>  |                                                                                                |                                        |                                  |

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|--------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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