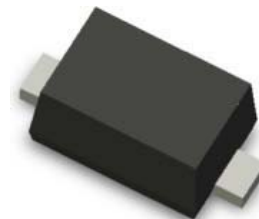


# RB520S30

## 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

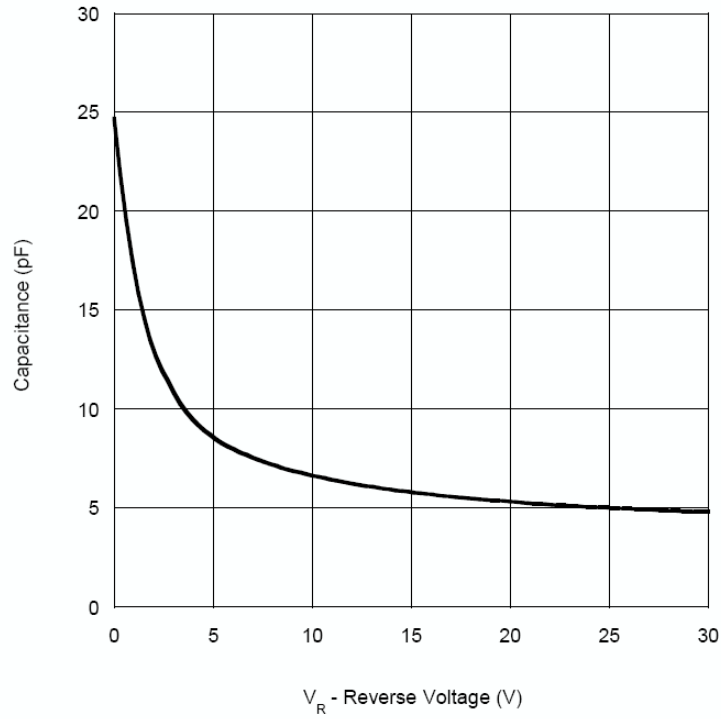
\*Device mounted on FR-4 PCB minimum land pad.

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

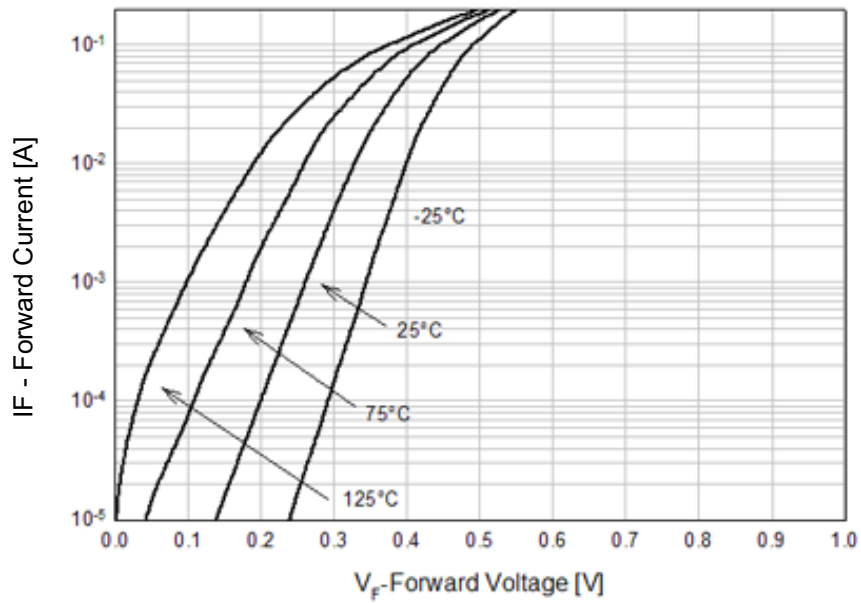
Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
$BV_R$	Breakdown Voltage	$I_R = 500 \mu\text{A}$	30			V
$I_R$	Reverse Current	$V_R = 10 \text{ V}$			1	$\mu\text{A}$
$V_F$	Forward Voltage	$I_F = 200 \text{ mA}$			0.6	V

Typical Performance Characteristics

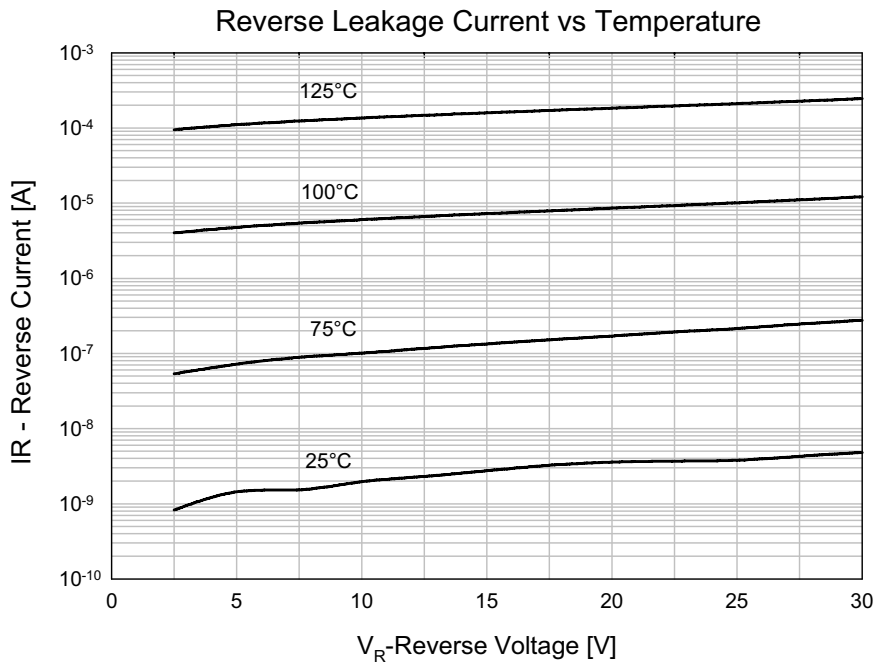
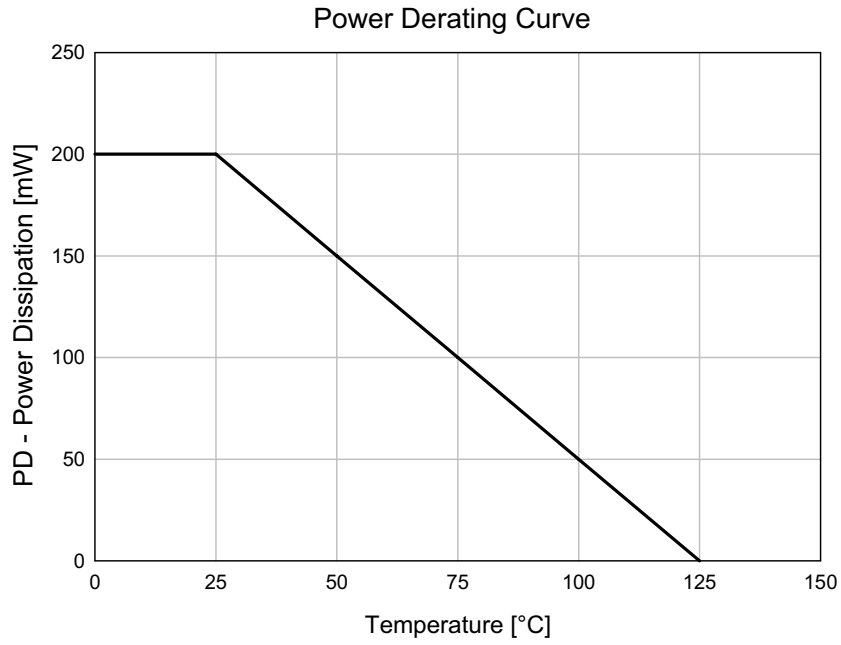
Capacitance vs Reverse Voltage



Forward Voltage vs Temperature

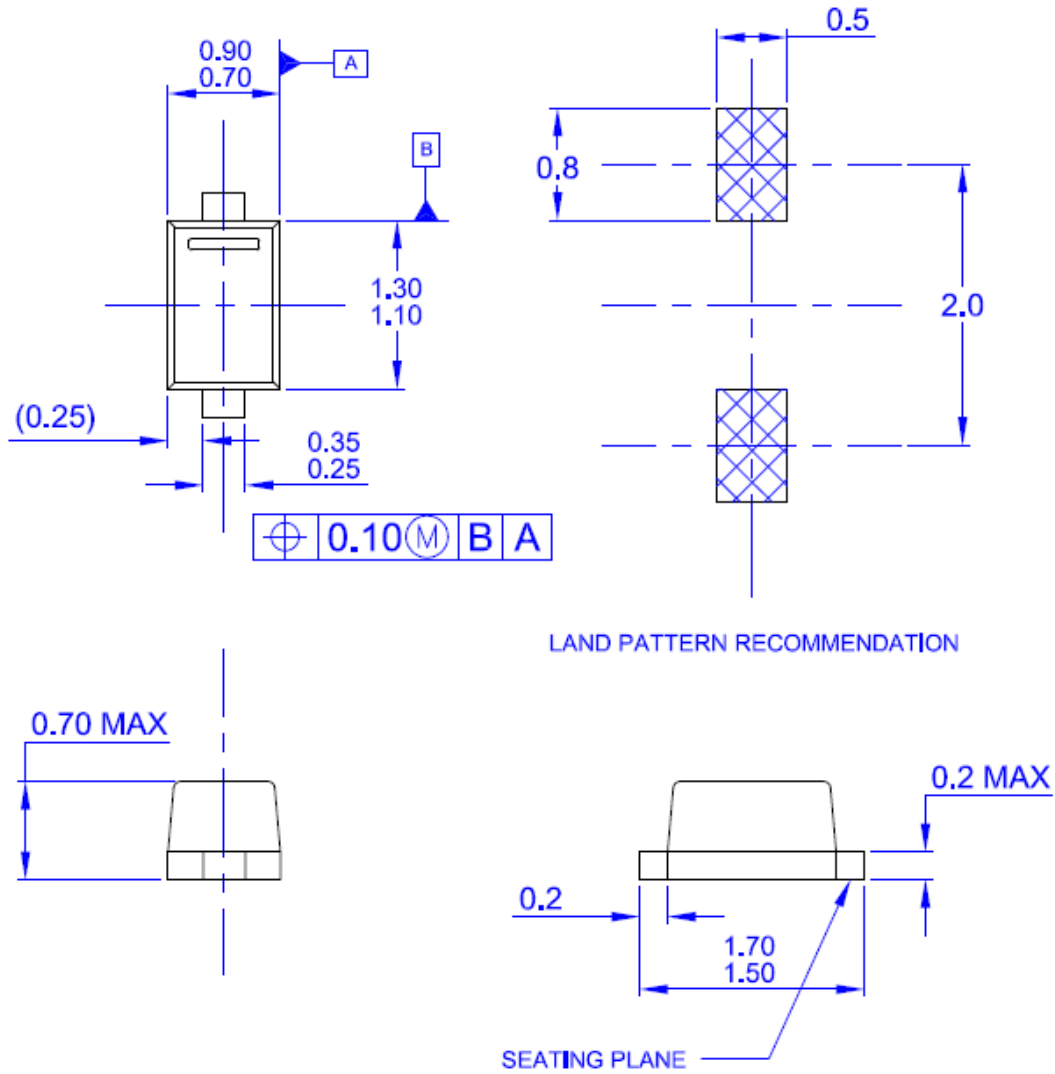


Typical Performance Characteristics



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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FRFET®	Power220®	SuperSOT™-6	
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
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