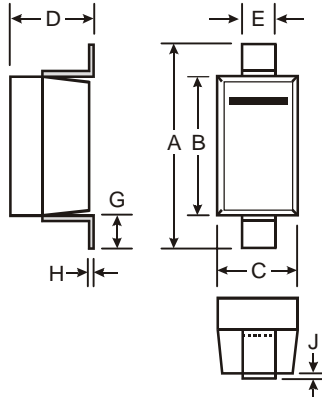
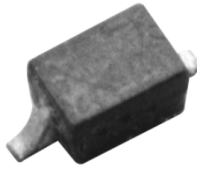


## 0.4 amp Schottky Low Forward Voltage Rectifier: B0520WS -- First SOD-323 Rectifier Product!



| SOD-323              |              |      |
|----------------------|--------------|------|
| Dim                  | Min          | Max  |
| A                    | 2.30         | 2.70 |
| B                    | 1.60         | 1.80 |
| C                    | 1.20         | 1.40 |
| D                    | 1.05 Typical |      |
| E                    | 0.25         | 0.35 |
| G                    | 0.20         | 0.40 |
| H                    | 0.10         | 0.15 |
| J                    | 0.05 Typical |      |
| All Dimensions in mm |              |      |

### Key Features

- Very low forward voltage drop ( $V_F$ ):
  - $V_{F(MAX)}$  @  $I_F = 0.5A$ : 400mV
  - $V_{F(MAX)}$  @  $I_F = 0.1A$ : 300mV
- High average rectified current rating for a SOD-323 device ( $I_o$ ): 400mA.

### Benefits

1. Low power loss / highly efficient.
2. Can operate at very high frequencies / conducive to switch-mode circuits.
3. Very small package allows for greater circuit density and reduced PCB area consumption.

### End Equipment Applications

Computer Motherboard, Portable Applications, and Handheld Devices:

- PWM Controller circuit in motherboard
- Low ripple 5V to -3V "Cuk" Converter
- 5V to 3.3VDC, 4 Amp Synchronous Step-Down Power Supply Controller
- Low Voltage Micro to Motor Interface

Can be used for clamping, protection, and detection

### Availability

- Samples *Now Available*
- Production Quantities stock to 4-6 weeks
- Data Sheet available NOW at: <http://www.diodes.com/datasheets/ds30235.pdf>

## Crosses to Other Manufacturers' Parts

- Near equivalent to:
  - Rohm RB551V-30
  - Central Semi CMDSH2-3
  - Infineon BAT60B

## Ways B0520WS Surpasses Its Competition

- Rohm RB551V-30
  - Our B0520WS offers lower forward voltage drop for more efficient forward operation.
  - On battery-powered devices, such as PDAs, cell phones, and notebook computers, this could equate to longer battery life.
- Central Semi CMDSH2-3
  - Our B0520WS offers lower forward voltage drop for more efficient forward operation.
  - On battery-powered devices, such as PDAs, cell phones, and notebook computers, this could equate to longer battery life.
  - Our B0520WS offers a higher forward surge current rating. This could result in our part reliably withstanding strong over-current transient conditions which can occur during unexpected short-duration short-circuit conditions.
- Infineon BAT60B
  - Higher  $BV_R$  may allow customer to use our B0520WS in some higher voltage applications, where they cannot use Infineon.
  - Lower  $I_R$  may equate to less power consumption and/or longer battery life in some applications.