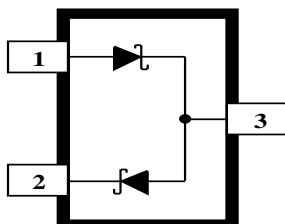


DUAL SCHOTTKY DIODE



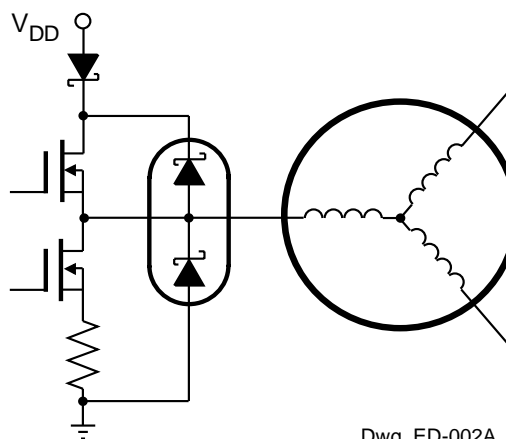
Dwg. PD-002

Schottky barrier diodes combine high rectification efficiency with high switching speeds and low series resistance. The A8920SLR dual-diode is designed specifically for hard-disk drive applications requiring low voltage drop rectification of the spindle motor back-EMF during power-down head retraction. It is supplied in a 3-lead small-outline transistor package (SOT-23/TO-236AB) for surface-mounting for use over the operating temperature range of -20°C to $+85^{\circ}\text{C}$.

FEATURES

- Low Forward Voltage Drop 440 mV Typical at 150 mA
- 500 mA Forward Current
- 20 V Reverse Voltage

TYPICAL APPLICATION



Dwg. ED-002A

ABSOLUTE MAXIMUM RATINGS

at $T_A = +25^{\circ}\text{C}$

Forward Current, I_F 500 mA
 Reverse Voltage, V_R 20 V
 Operating Temperature Range,
 T_A -20°C to $+85^{\circ}\text{C}$
 Storage Temperature Range,
 T_S -65°C to $+150^{\circ}\text{C}$

Always order by complete part number: **A8920SLR**.

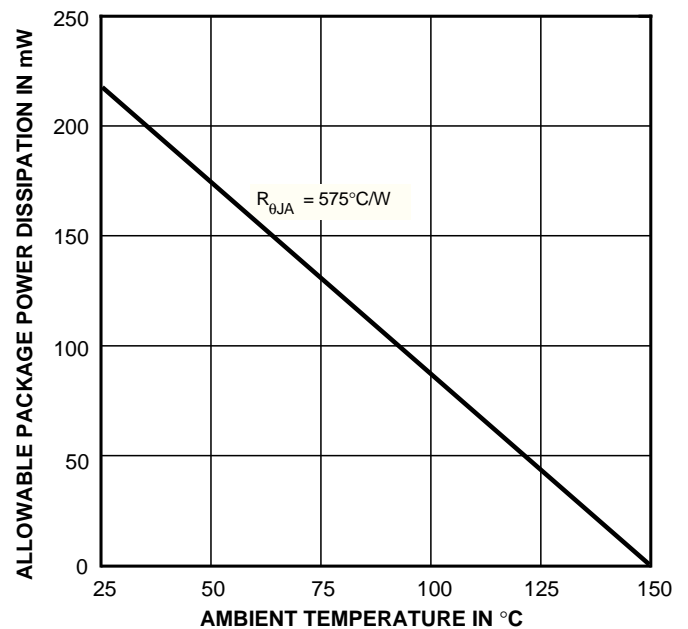
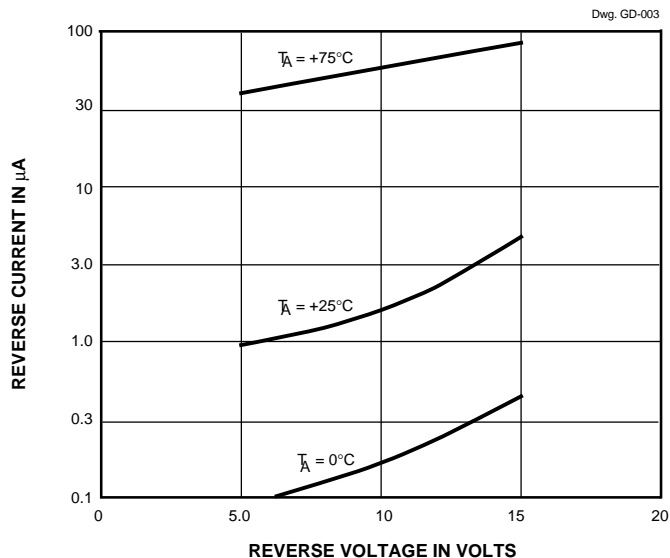
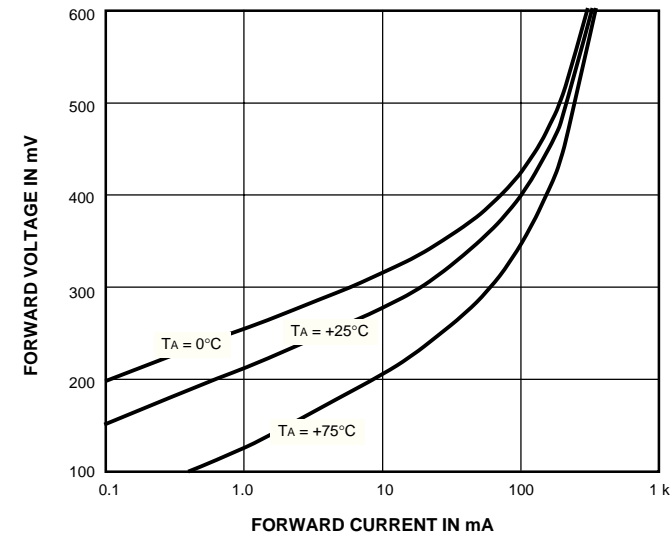
8920

DUAL SCHOTTKY DIODE

ELECTRICAL CHARACTERISTICS at $T_A = +25^\circ\text{C}$ (unless otherwise specified).

| Characteristic | Symbol | Test Conditions | Limits | | | |
|---------------------------|------------|--|--------|------|------|---------------|
| | | | Min. | Typ. | Max. | Units |
| Reverse Breakdown Voltage | $V_{(BR)}$ | $I_R = 100\ \mu\text{A}$ | 20 | — | — | V |
| Reverse Leakage Current | I_R | $V_R = 10\ \text{V}$ | — | 1.6 | 20 | μA |
| Forward Voltage | V_F | $I_F = 50\ \text{mA}$ | — | 346 | 400 | mV |
| | | $I_F = 150\ \text{mA}$ | — | 440 | 500 | mV |
| Junction Capacitance | C_T | $V_R = 0\ \text{V}, f = 1\ \text{MHz}$ | — | 370 | — | pF |
| Reverse Recovery Time | t_{rr} | $I_F = I_R = 100\ \text{mA}$ | — | 32 | — | ns |

TYPICAL CHARACTERISTICS



Dwg. GD-002

Allegro MicroSystems, Inc. reserves the right to make, from time to time, such departures from the detail specifications as may be required to permit improvements in the design of its products.

The information included herein is believed to be accurate and reliable. However, Allegro MicroSystems, Inc. assumes no responsibility for its use; nor for any infringements of patents or other rights of third parties which may result from its use.

Dwg. GD-004



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