# 2.7 V, 800 µA, 80 MHz Rail-to-Rail I/O Amplifiers

# AD8031/AD8032

## FEATURES

- **Low power**
  - **Supply current 800 µA/amplifier**
  - **Fully specified at +2.7 V, +5 V, and ±5 V supplies**
- **High speed and fast settling on 5 V**
  - **80 MHz, −3 dB bandwidth (G = +1)**
  - **30 V/µs slew rate**
  - **125 ns settling time to 0.1%**
- **Rail-to-rail input and output**
  - **No phase reversal with input 0.5 V beyond supplies**
  - **Input CMVR extends beyond rails by 200 mV**
  - **Output swing to within 20 mV of either rail**
- **Low distortion**
  - **−62 dB @ 1 MHz, $V_O$ = 2 V p-p**
  - **−86 dB @ 100 kHz, $V_O$ = 4.6 V p-p**
- **Output current: 15 mA**
- **High grade option: $V_{OS}$ (maximum) = 1.5 mV**

## APPLICATIONS

- **High speed, battery-operated systems**
- **High component density systems**
- **Portable test instruments**
- **A/D buffers**
- **Active filters**
- **High speed, set-and-demand amplifiers**

## GENERAL DESCRIPTION

The AD8031 (single) and AD8032 (dual) single-supply, voltage feedback amplifiers feature high speed performance with 80 MHz of small signal bandwidth, 30 V/µs slew rate, and 125 ns settling time. This performance is possible while consuming less than 4.0 mW of power from a single 5 V supply. These features increase the operation time of high speed, battery-powered systems without compromising dynamic performance.

The products have true single-supply capability with rail-to-rail input and output characteristics and are specified for +2.7 V, +5 V, and ±5 V supplies. The input voltage range can extend to 500 mV beyond each rail. The output voltage swings to within 20 mV of each rail providing the maximum output dynamic range.

The AD8031/AD8032 also offer excellent signal quality for only 800 µA of supply current per amplifier; THD is −62 dBc with a 2 V p-p, 1 MHz output signal, and −86 dBc for a 100 kHz, 4.6 V p-p signal on +5 V supply. The low distortion and fast settling time make them ideal as buffers to single-supply ADCs.

## CONNECTION DIAGRAMS

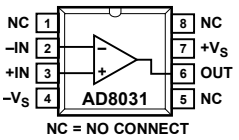



*Figure 1. 8-Lead PDIP (N) and SOIC_N (R)*

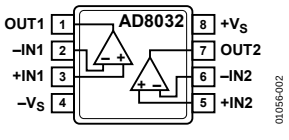



*Figure 2. 8-Lead PDIP (N), SOIC_N (R), and MSOP (RM)*

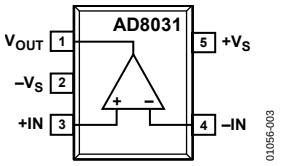



*Figure 3. 5-Lead SOT-23 (RJ-5)*

Operating on supplies from +2.7 V to +12 V and dual supplies up to ±6 V, the AD8031/AD8032 are ideal for a wide range of applications, from battery-operated systems with large bandwidth requirements to high speed systems where component density requires lower power dissipation. The AD8031/AD8032 are available in 8-lead PDIP and 8-lead SOIC_N packages and operate over the industrial temperature range of −40°C to +85°C. The AD8031A is also available in the space-saving 5-lead SOT-23 package, and the AD8032A is available in an 8-lead MSOP package.

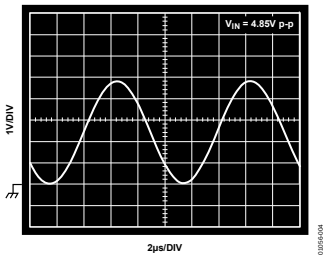



*Figure 4. Input $V_{IN}$*

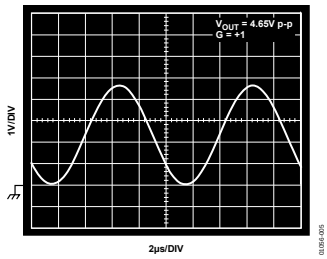



*Figure 5. Output $V_{OUT}$*

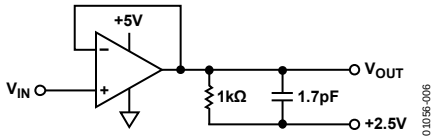



*Figure 6. Rail-to-Rail Performance at 100 kHz*

# SPECIFICATIONS

## +2.7 V SUPPLY

@ $T_A$ = 25°C, $V_S$ = 2.7 V, $R_L$ = 1 kΩ to 1.35 V, $R_F$ = 2.5 kΩ, unless otherwise noted.

**Table 1.**

| | | AD8031A/AD8032A | | | AD8031B/AD8032B | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Conditions** | **Min** | **Typ** | **Max** | **Min** | **Typ** | **Max** | **Unit** |
| DYNAMIC PERFORMANCE | | | | | | | | |
| –3 dB Small Signal Bandwidth | G = +1, $V_O$ < 0.4 V p-p | 54 | 80 | | 54 | 80 | | MHz |
| Slew Rate | G = –1, $V_O$ = 2 V step | 25 | 30 | | 25 | 30 | | V/µs |
| Settling Time to 0.1% | G = –1, $V_O$ = 2 V step, $C_L$ = 10 pF | | 125 | | | 125 | | ns |
| DISTORTION/NOISE PERFORMANCE | | | | | | | | |
| Total Harmonic Distortion | $f_C$ = 1 MHz, $V_O$ = 2 V p-p, G = +2 | | –62 | | | –62 | | dBc |
| | $f_C$ = 100 kHz, $V_O$ = 2 V p-p, G = +2 | | –86 | | | –86 | | dBc |
| Input Voltage Noise | f = 1 kHz | | 15 | | | 15 | | nV/√Hz |
| Input Current Noise | f = 100 kHz | | 2.4 | | | 2.4 | | pA/√Hz |
| | f = 1 kHz | | 5 | | | 5 | | pA/√Hz |
| Crosstalk (AD8032 Only) | f = 5 MHz | | –60 | | | –60 | | dB |
| DC PERFORMANCE | | | | | | | | |
| Input Offset Voltage | $V_{CM}$ = $V_{CC}$/2; $V_{OUT}$ = 135 V | | ±1 | ±6 | | ±0.5 | ±1.5 | mV |
| | $T_{MIN}$ to $T_{MAX}$ | | ±6 | ±10 | | ±1.6 | ±2.5 | mV |
| Offset Drift | $V_{CM}$ = $V_{CC}$/2; $V_{OUT}$ = 135 V | | 10 | | | 10 | | µV/°C |
| Input Bias Current | $V_{CM}$ = $V_{CC}$/2; $V_{OUT}$ = 135 V | | 0.45 | 2 | | 0.45 | 2 | µA |
| | $T_{MIN}$ to $T_{MAX}$ | | | 2.2 | | | 2.2 | µA |
| Input Offset Current | | | 50 | 500 | | 50 | 500 | nA |
| Open-Loop Gain | $V_{CM}$ = $V_{CC}$/2; $V_{OUT}$ = 0.35 V to 2.35 V | 76 | 80 | | 76 | 80 | | dB |
| | $T_{MIN}$ to $T_{MAX}$ | 74 | | | 74 | | | dB |
| INPUT CHARACTERISTICS | | | | | | | | |
| Common-Mode Input Resistance | | | 40 | | | 40 | | MΩ |
| Differential Input Resistance | | | 280 | | | 280 | | kΩ |
| Input Capacitance | | | 1.6 | | | 1.6 | | pF |
| Input Voltage Range | | | –0.5 to +3.2 | | | –0.5 to +3.2 | | V |
| Input Common-Mode Voltage Range | | | –0.2 to +2.9 | | | –0.2 to +2.9 | | V |
| Common-Mode Rejection Ratio | $V_{CM}$ = 0 V to 2.7 V | 46 | 64 | | 46 | 64 | | dB |
| | $V_{CM}$ = 0 V to 1.55 V | 58 | 74 | | 58 | 74 | | dB |
| Differential Input Voltage | | | | 3.4 | | | 3.4 | V |
| OUTPUT CHARACTERISTICS | | | | | | | | |
| Output Voltage Swing Low | $R_L$ = 10 kΩ | 0.05 | 0.02 | | 0.05 | 0.02 | | V |
| Output Voltage Swing High | | 2.6 | 2.68 | | 2.6 | 2.68 | | V |
| Output Voltage Swing Low | $R_L$ = 1 kΩ | 0.15 | 0.08 | | 0.15 | 0.08 | | V |
| Output Voltage Swing High | | 2.55 | 2.6 | | 2.55 | 2.6 | | V |
| Output Current | | | 15 | | | 15 | | mA |
| Short Circuit Current | Sourcing | | 21 | | | 21 | | mA |
| | Sinking | | –34 | | | –34 | | mA |
| Capacitive Load Drive | G = +2 (See Figure 46) | | 15 | | | 15 | | pF |
| POWER SUPPLY | | | | | | | | |
| Operating Range | | 2.7 | | 12 | 2.7 | | 12 | V |
| Quiescent Current per Amplifier | | | 750 | 1250 | | 750 | 1250 | µA |
| Power Supply Rejection Ratio | $V_S$– = 0 V to –1 V or $V_S$+ = +2.7 V to +3.7 V | 75 | 86 | | 75 | 86 | | dB |

## +5 V SUPPLY

@ $T_A$ = 25°C, $V_S$ = 5 V, $R_L$ = 1 kΩ to 2.5 V, $R_F$ = 2.5 kΩ, unless otherwise noted.

**Table 2.**

| | | AD8031A/AD8032A | | | AD8031B/AD8032B | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Conditions** | **Min** | **Typ** | **Max** | **Min** | **Typ** | **Max** | **Unit** |
| DYNAMIC PERFORMANCE | | | | | | | | |
| −3 dB Small Signal Bandwidth | G = +1, $V_O$ < 0.4 V p-p | 54 | 80 | | 54 | 80 | | MHz |
| Slew Rate | G = −1, $V_O$ = 2 V step | 27 | 32 | | 27 | 32 | | V/µs |
| Settling Time to 0.1% | G = −1, $V_O$ = 2 V step, $C_L$ = 10 pF | | 125 | | | 125 | | ns |
| DISTORTION/NOISE PERFORMANCE | | | | | | | | |
| Total Harmonic Distortion | $f_C$ = 1 MHz, $V_O$ = 2 V p-p, G = +2 | | −62 | | | −62 | | dBc |
| | $f_C$ = 100 kHz, $V_O$ = 2 V p-p, G = +2 | | −86 | | | −86 | | dBc |
| Input Voltage Noise | f = 1 kHz | | 15 | | | 15 | | nV/√Hz |
| Input Current Noise | f = 100 kHz | | 2.4 | | | 2.4 | | pA/√Hz |
| | f = 1 kHz | | 5 | | | 5 | | pA/√Hz |
| Differential Gain | $R_L$ = 1 kΩ | | 0.17 | | | 0.17 | | % |
| Differential Phase | $R_L$ = 1 kΩ | | 0.11 | | | 0.11 | | Degrees |
| Crosstalk (AD8032 Only) | f = 5 MHz | | −60 | | | −60 | | dB |
| DC PERFORMANCE | | | | | | | | |
| Input Offset Voltage | $V_{CM}$ = $V_{CC}$/2; $V_{OUT}$ = 2.5 V | | ±1 | ±6 | | ±0.5 | ±1.5 | mV |
| | $T_{MIN}$ to $T_{MAX}$ | | ±6 | ±10 | | ±1.6 | ±2.5 | mV |
| Offset Drift | $V_{CM}$ = $V_{CC}$/2; $V_{OUT}$ = 2.5 V | | 5 | | | 5 | | µV/°C |
| Input Bias Current | $V_{CM}$ = $V_{CC}$/2; $V_{OUT}$ = 2.5 V | | 0.45 | 1.2 | | 0.45 | 1.2 | µA |
| | $T_{MIN}$ to $T_{MAX}$ | | | 2.0 | | | 2.0 | µA |
| Input Offset Current | | | 50 | 350 | | 50 | 250 | nA |
| Open-Loop Gain | $V_{CM}$ = $V_{CC}$/2; $V_{OUT}$ = 1.5 V to 3.5 V | 76 | 82 | | 76 | 82 | | dB |
| | $T_{MIN}$ to $T_{MAX}$ | 74 | | | 74 | | | dB |
| INPUT CHARACTERISTICS | | | | | | | | |
| Common-Mode Input Resistance | | | 40 | | | 40 | | MΩ |
| Differential Input Resistance | | | 280 | | | 280 | | kΩ |
| Input Capacitance | | | 1.6 | | | 1.6 | | pF |
| Input Voltage Range | | | −0.5 to +5.5 | | | −0.5 to +5.5 | | V |
| Input Common-Mode Voltage Range | | | −0.2 to +5.2 | | | −0.2 to +5.2 | | V |
| Common-Mode Rejection Ratio | $V_{CM}$ = 0 V to 5 V | 56 | 70 | | 56 | 70 | | dB |
| | $V_{CM}$ = 0 V to 3.8 V | 66 | 80 | | 66 | 80 | | dB |
| Differential Input Voltage | | | | 3.4 | | | 3.4 | V |
| OUTPUT CHARACTERISTICS | | | | | | | | |
| Output Voltage Swing Low | $R_L$ = 10 kΩ | 0.05 | 0.02 | | 0.05 | 0.02 | | V |
| Output Voltage Swing High | | 4.95 | 4.98 | | 4.95 | 4.98 | | V |
| Output Voltage Swing Low | $R_L$ = 1 kΩ | 0.2 | 0.1 | | 0.2 | 0.1 | | V |
| Output Voltage Swing High | | 4.8 | 4.9 | | 4.8 | 4.9 | | V |
| Output Current | | | 15 | | | 15 | | mA |
| Short Circuit Current | Sourcing | | 28 | | | 28 | | mA |
| | Sinking | | −46 | | | −46 | | mA |
| Capacitive Load Drive | G = +2 (See Figure 46) | | 15 | | | 15 | | pF |
| POWER SUPPLY | | | | | | | | |
| Operating Range | | 2.7 | | 12 | 2.7 | | 12 | V |
| Quiescent Current per Amplifier | | | 800 | 1400 | | 800 | 1400 | µA |
| Power Supply Rejection Ratio | $V_S$− = 0 V to −1 V or $V_S$+ = +5 V to +6 V | 75 | 86 | | 75 | 86 | | dB |

## ±5 V SUPPLY

@ $T_A$ = 25°C, $V_S$ = ±5 V, $R_L$ = 1 kΩ to 0 V, $R_F$ = 2.5 kΩ, unless otherwise noted.

**Table 3.**

| Parameter | Conditions | AD8031A/AD8032A Min | AD8031A/AD8032A Typ | AD8031A/AD8032A Max | AD8031B/AD8032B Min | AD8031B/AD8032B Typ | AD8031B/AD8032B Max | Unit |
|---|---|---|---|---|---|---|---|---|
| DYNAMIC PERFORMANCE | | | | | | | | |
| −3 dB Small Signal Bandwidth | G = +1, $V_O$ < 0.4 V p-p | 54 | 80 | | 54 | 80 | | MHz |
| Slew Rate | G = −1, $V_O$ = 2 V step | 30 | 35 | | 30 | 35 | | V/µs |
| Settling Time to 0.1% | G = −1, $V_O$ = 2 V step, $C_L$ = 10 pF | | 125 | | | 125 | | ns |
| DISTORTION/NOISE PERFORMANCE | | | | | | | | |
| Total Harmonic Distortion | $f_C$ = 1 MHz, $V_O$ = 2 V p-p, G = +2 | | −62 | | | −62 | | dBc |
| | $f_C$ = 100 kHz, $V_O$ = 2 V p-p, G = +2 | | −86 | | | −86 | | dBc |
| Input Voltage Noise | f = 1 kHz | | 15 | | | 15 | | nV/√Hz |
| Input Current Noise | f = 100 kHz | | 2.4 | | | 2.4 | | pA/√Hz |
| | f = 1 kHz | | 5 | | | 5 | | pA/√Hz |
| Differential Gain | $R_L$ = 1 kΩ | | 0.15 | | | 0.15 | | % |
| Differential Phase | $R_L$ = 1 kΩ | | 0.15 | | | 0.15 | | Degrees |
| Crosstalk (AD8032 Only) | f = 5 MHz | | −60 | | | −60 | | dB |
| DC PERFORMANCE | | | | | | | | |
| Input Offset Voltage | $V_{CM}$ = 0 V; $V_{OUT}$ = 0 V | | ±1 | ±6 | | ±0.5 | ±1.5 | mV |
| | $T_{MIN}$ to $T_{MAX}$ | | ±6 | ±10 | | ±1.6 | ±2.5 | mV |
| Offset Drift | $V_{CM}$ = 0 V; $V_{OUT}$ = 0 V | | 5 | | | 5 | | µV/°C |
| Input Bias Current | $V_{CM}$ = 0 V; $V_{OUT}$ = 0 V | | 0.45 | 1.2 | | 0.45 | 1.2 | µA |
| | $T_{MIN}$ to $T_{MAX}$ | | | 2.0 | | | 2.0 | µA |
| Input Offset Current | | | 50 | 350 | | 50 | 250 | nA |
| Open-Loop Gain | $V_{CM}$ = 0 V; $V_{OUT}$ = ±2 V | 76 | 80 | | 76 | 80 | | dB |
| | $T_{MIN}$ to $T_{MAX}$ | 74 | | | 74 | | | dB |
| INPUT CHARACTERISTICS | | | | | | | | |
| Common-Mode Input Resistance | | | 40 | | | 40 | | MΩ |
| Differential Input Resistance | | | 280 | | | 280 | | kΩ |
| Input Capacitance | | | 1.6 | | | 1.6 | | pF |
| Input Voltage Range | | | −5.5 to +5.5 | | | −5.5 to +5.5 | | V |
| Input Common-Mode Voltage Range | | | −5.2 to +5.2 | | | −5.2 to +5.2 | | V |
| Common-Mode Rejection Ratio | $V_{CM}$ = −5 V to +5 V | 60 | 80 | | 60 | 80 | | dB |
| | $V_{CM}$ = −5 V to +3.5 V | 66 | 90 | | 66 | 90 | | dB |
| Differential/Input Voltage | | | | 3.4 | | | 3.4 | V |
| OUTPUT CHARACTERISTICS | | | | | | | | |
| Output Voltage Swing Low | $R_L$ = 10 kΩ | −4.94 | −4.98 | | −4.94 | −4.98 | | V |
| Output Voltage Swing High | | +4.94 | +4.98 | | +4.94 | +4.98 | | V |
| Output Voltage Swing Low | $R_L$ = 1 kΩ | −4.7 | −4.85 | | −4.7 | −4.85 | | V |
| Output Voltage Swing High | | +4.7 | +4.75 | | +4.7 | +4.75 | | V |
| Output Current | | | 15 | | | 15 | | mA |
| Short Circuit Current | Sourcing | | 35 | | | 35 | | mA |
| | Sinking | | −50 | | | −50 | | mA |
| Capacitive Load Drive | G = +2 (See Figure 46) | | 15 | | | 15 | | pF |
| POWER SUPPLY | | | | | | | | |
| Operating Range | | ±1.35 | | ±6 | ±1.35 | | ±6 | V |
| Quiescent Current per Amplifier | | | 900 | 1600 | | 900 | 1600 | µA |
| Power Supply Rejection Ratio | $V_S$− = −5 V to −6 V or $V_S$+ = +5 V to +6 V | 76 | 86 | | 76 | 86 | | dB |

# ABSOLUTE MAXIMUM RATINGS

**Table 4.**

| Parameter | Rating |
|---|---|
| Supply Voltage | 12.6 V |
| Internal Power Dissipation[1] | |
| 8-Lead PDIP (N) | 1.3 W |
| 8-Lead SOIC_N (R) | 0.8 W |
| 8-Lead MSOP (RM) | 0.6 W |
| 5-Lead SOT-23 (RJ) | 0.5 W |
| Input Voltage (Common Mode) | $\pm V_S \pm 0.5$ V |
| Differential Input Voltage | ±3.4 V |
| Output Short-Circuit Duration | Observe Power Derating Curves |
| Storage Temperature Range (N, R, RM, RJ) | −65°C to +125°C |
| Lead Temperature (Soldering 10 sec) | 300°C |

Stresses above those listed under Absolute Maximum Ratings may cause permanent damage to the device. This is a stress rating only; functional operation of the device at these or any other conditions above those indicated in the operational section of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

[1] Specification is for the device in free air:
8-Lead PDIP: $\theta_{JA}$ = 90°C/W.
8-Lead SOIC_N: $\theta_{JA}$ = 155°C/W.
8-Lead MSOP: $\theta_{JA}$ = 200°C/W.
5-Lead SOT-23: $\theta_{JA}$ = 240°C/W.

## MAXIMUM POWER DISSIPATION

The maximum power that can be safely dissipated by the AD8031/AD8032 is limited by the associated rise in junction temperature. The maximum safe junction temperature for plastic encapsulated devices is determined by the glass transition temperature of the plastic, approximately 150°C. Exceeding this limit temporarily can cause a shift in parametric performance due to a change in the stresses exerted on the die by the package. Exceeding a junction temperature of 175°C for an extended period can result in device failure.

While the AD8031/AD8032 are internally short-circuit protected, this may not be sufficient to guarantee that the maximum junction temperature (150°C) is not exceeded under all conditions. To ensure proper operation, it is necessary to observe the maximum power derating curves shown in Figure 7.

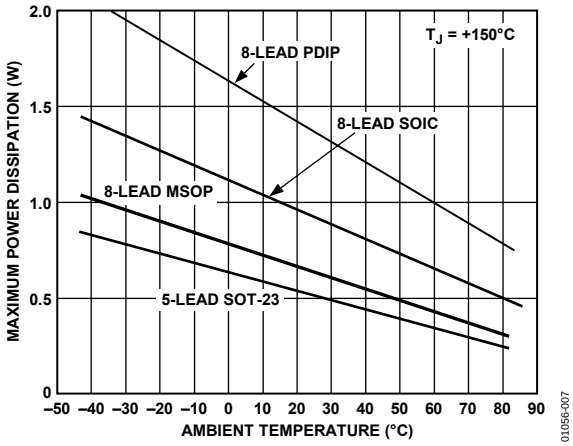
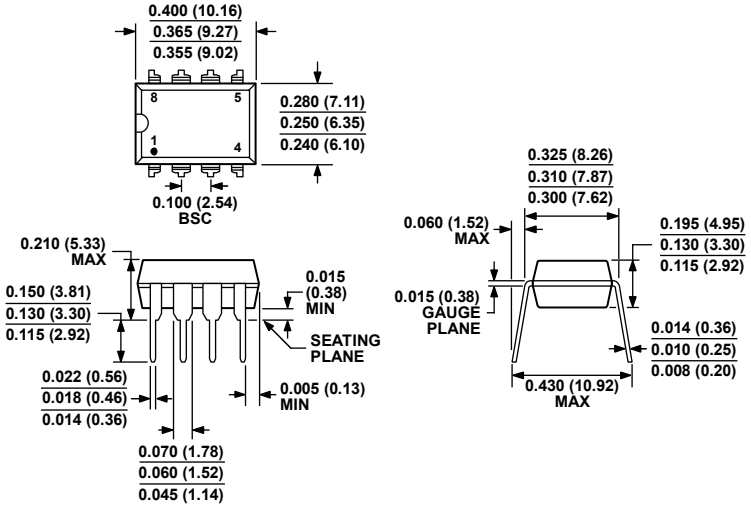



*Figure 7. Maximum Power Dissipation vs. Temperature*

## ESD CAUTION

ESD (electrostatic discharge) sensitive device. Electrostatic charges as high as 4000 V readily accumulate on the human body and test equipment and can discharge without detection. Although this product features proprietary ESD protection circuitry, permanent damage may occur on devices subjected to high energy electrostatic discharges. Therefore, proper ESD precautions are recommended to avoid performance degradation or loss of functionality.

# OUTLINE DIMENSIONS

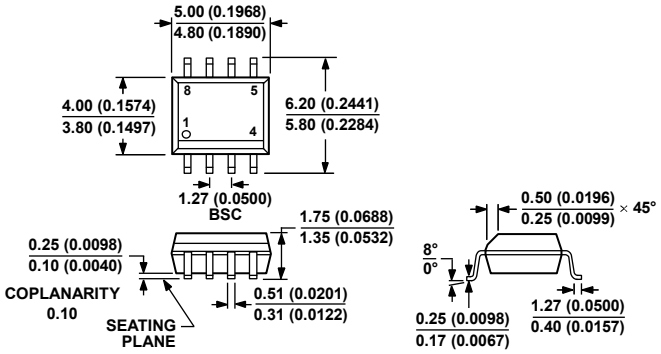



**COMPLIANT TO JEDEC STANDARDS MS-001**

**CONTROLLING DIMENSIONS ARE IN INCHES; MILLIMETER DIMENSIONS (IN PARENTHESES) ARE ROUNDED-OFF INCH EQUIVALENTS FOR REFERENCE ONLY AND ARE NOT APPROPRIATE FOR USE IN DESIGN. CORNER LEADS MAY BE CONFIGURED AS WHOLE OR HALF LEADS.**

070606-A

*Figure 54. 8-Lead Plastic Dual In-Line Package [PDIP]*
*Narrow Body (N-8)*
*Dimensions shown in inches and (millimeters)*




**COMPLIANT TO JEDEC STANDARDS MS-012-AA**

**CONTROLLING DIMENSIONS ARE IN MILLIMETERS; INCH DIMENSIONS (IN PARENTHESES) ARE ROUNDED-OFF MILLIMETER EQUIVALENTS FOR REFERENCE ONLY AND ARE NOT APPROPRIATE FOR USE IN DESIGN.**

012407-A

*Figure 55. 8-Lead Standard Small Outline Package [SOIC_N]*
*Narrow Body (R-8)*
*Dimensions shown in millimeters and (inches)*

## ORDERING GUIDE

| Model | Temperature Range | Package Description | Package Option | Branding |
|---|---|---|---|---|
| AD8031AN | –40°C to +85°C | 8-Lead PDIP | N-8 | |
| AD8031ANZ[1] | –40°C to +85°C | 8-Lead PDIP | N-8 | |
| AD8031AR | –40°C to +85°C | 8-Lead SOIC_N | R-8 | |
| AD8031AR-REEL | –40°C to +85°C | 8-Lead SOIC_N, 13" Tape and Reel | R-8 | |
| AD8031AR-REEL7 | –40°C to +85°C | 8-Lead SOIC_N, 7" Tape and Reel | R-8 | |
| AD8031ARZ[1] | –40°C to +85°C | 8-Lead SOIC_N | R-8 | |
| AD8031ARZ-REEL[1] | –40°C to +85°C | 8-Lead SOIC_N, 13" Tape and Reel | R-8 | |
| AD8031ARZ-REEL7[1] | –40°C to +85°C | 8-Lead SOIC_N, 7" Tape and Reel | R-8 | |
| AD8031ART-R2 | –40°C to +85°C | 5-Lead SOT-23 | RJ-5 | H0A |
| AD8031ART-REEL | –40°C to +85°C | 5-Lead SOT-23, 13" Tape and Reel | RJ-5 | H0A |
| AD8031ART-REEL7 | –40°C to +85°C | 5-Lead SOT-23, 7" Tape and Reel | RJ-5 | H0A |
| AD8031ARTZ-R2[1] | –40°C to +85°C | 5-Lead SOT-23 | RJ-5 | H04 |
| AD8031ARTZ-REEL[1] | –40°C to +85°C | 5-Lead SOT-23, 13" Tape and Reel | RJ-5 | H04 |
| AD8031ARTZ-REEL7[1] | –40°C to +85°C | 5-Lead SOT-23, 7" Tape and Reel | RJ-5 | H04 |
| AD8031BN | –40°C to +85°C | 8-Lead PDIP | N-8 | |
| AD8031BNZ[1] | –40°C to +85°C | 8-Lead PDIP | N-8 | |
| AD8031BR | –40°C to +85°C | 8-Lead SOIC_N | R-8 | |
| AD8031BR-REEL | –40°C to +85°C | 8-Lead SOIC_N, 13" Tape and Reel | R-8 | |
| AD8031BR-REEL7 | –40°C to +85°C | 8-Lead SOIC_N, 7" Tape and Reel | R-8 | |
| AD8031BRZ[1] | –40°C to +85°C | 8-Lead SOIC_N | R-8 | |
| AD8031BRZ-REEL[1] | –40°C to +85°C | 8-Lead SOIC_N, 13" Tape and Reel | R-8 | |
| AD8031BRZ-REEL7[1] | –40°C to +85°C | 8-Lead SOIC_N, 7" Tape and Reel | R-8 | |
| AD8032AN | –40°C to +85°C | 8-Lead PDIP | N-8 | |
| AD8032ANZ[1] | –40°C to +85°C | 8-Lead PDIP | N-8 | |
| AD8032AR | –40°C to +85°C | 8-Lead SOIC_N | R-8 | |
| AD8032AR-REEL | –40°C to +85°C | 8-Lead SOIC_N, 13" Tape and Reel | R-8 | |
| AD8032AR-REEL7 | –40°C to +85°C | 8-Lead SOIC_N, 7" Tape and Reel | R-8 | |
| AD8032ARZ[1] | –40°C to +85°C | 8-Lead SOIC_N | R-8 | |
| AD8032ARZ-REEL[1] | –40°C to +85°C | 8-Lead SOIC_N, 13" Tape and Reel | R-8 | |
| AD8032ARZ-REEL7[1] | –40°C to +85°C | 8-Lead SOIC_N, 7" Tape and Reel | R-8 | |
| AD8032ARM | –40°C to +85°C | 8-Lead MSOP | RM-8 | H9A |
| AD8032ARM-REEL | –40°C to +85°C | 8-Lead MSOP, 13" Tape and Reel | RM-8 | H9A |
| AD8032ARM-REEL7 | –40°C to +85°C | 8-Lead MSOP, 7" Tape and Reel | RM-8 | H9A |
| AD8032ARMZ[1] | –40°C to +85°C | 8-Lead MSOP | RM-8 | H9A# |
| AD8032ARMZ-REEL[1] | –40°C to +85°C | 8-Lead MSOP, 13" Tape and Reel | RM-8 | H9A# |
| AD8032ARMZ-REEL7[1] | –40°C to +85°C | 8-Lead MSOP, 7" Tape and Reel | RM-8 | H9A# |
| AD8032BN | –40°C to +85°C | 8-Lead PDIP | N-8 | |
| AD8032BNZ[1] | –40°C to +85°C | 8-Lead PDIP | N-8 | |
| AD8032BR | –40°C to +85°C | 8-Lead SOIC_N | R-8 | |
| AD8032BR-REEL | –40°C to +85°C | 8-Lead SOIC_N, 13" Tape and Reel | R-8 | |
| AD8032BR-REEL7 | –40°C to +85°C | 8-Lead SOIC_N, 7" Tape and Reel | R-8 | |
| AD8032BRZ[1] | –40°C to +85°C | 8-Lead SOIC_N | R-8 | |
| AD8032BRZ-REEL[1] | –40°C to +85°C | 8-Lead SOIC_N, 13" Tape and Reel | R-8 | |
| AD8032BRZ-REEL7[1] | –40°C to +85°C | 8-Lead SOIC_N, 7" Tape and Reel | R-8 | |

[1] Z = RoHS Compliant Part, # denotes lead-free product may be top or bottom marked.