

Product Overview

FOD2741B: 8-PIN DIP Error Amplifier Optocoupler

For complete documentation, see the data sheet.

The FOD2741 Optically Isolated Amplifier consists of the popular KA431 precision programmable shunt reference and an optocoupler. The optocoupler is a gallium arsenide (GaAs) light emitting diode optically coupled to a silicon phototransistor. It comes in 3 grades of reference voltage tolerance = 2%, 1%, and 0.5%. The Current Transfer Ratio (CTR) ranges from 100% to 200%. It also has an outstanding temperature coefficient of 50 ppm/°C. It is primarily intended for use as the error amplifier/reference voltage/optocoupler function in isolated ac to dc power supplies and dc/dc converters. When using the FOD2741, power supply designers can reduce the component count and save space in tightly packaged designs. The tight tolerance reference eliminates the need for adjustments in many applications. The device comes in a 8-pin dip white package.

Features

- Optocoupler, precision reference and error amplifier in single package
- 2.5V reference
- CTR 100% to 200%
- 5,000V RMS isolation
- UL approved E90700, Volume 2; CSA approval 1296837; VDE approval 40002463; BSI approval 8702, 8703
- Low temperature coefficient 50 ppm/°C max
- FOD2741A: tolerance 0.5%; FOD2741B: tolerance 1%; FOD2741C: tolerance 2%

Applications

- AC-DC Merchant Power Supply
- Consumer Appliances
- Industrial Motor

Part Electrical Specifications

| Product | Pricing (\$/Unit) | Compliance | Status | V _{REF} Tolerance (%) | V _{REF} (Min) (V) | V _{REF} (Typ) (V) | V _{REF} (Max) (V) | CTR (Min) (%) | CTR (Max) (%) | CTR tested @ I _F (mA) | V _{CE(sat)} (Max) (V) | BV _{CE0} (Min) (V) | V _{ISO} (Min) (V) | T _{OPR} (Min) (°C) | T _{OPR} (Max) (°C) | Package Type |
|-------------|-------------------|----------------------------------|--------|--------------------------------|----------------------------|----------------------------|----------------------------|---------------|---------------|----------------------------------|--------------------------------|-----------------------------|----------------------------|-----------------------------|-----------------------------|--------------|
| FOD2741B | 0.5827 | Pb-free non AEC-Q and PPAP | Active | 1 | 2.47 | 2.495 | 2.52 | 100 | 200 | 10 | 0.4 | 70 | 5000 | -25 | 85 | PDIP-8 |
| FOD2741BS | 0.5827 | Pb-free non AEC-Q and PPAP | Active | 1 | 2.47 | 2.495 | 2.52 | 100 | 200 | 10 | 0.4 | 70 | 5000 | -25 | 85 | PDIP-8 GW |
| FOD2741BSD | 0.6133 | Pb-free non AEC-Q and PPAP | Active | 1 | 2.47 | 2.495 | 2.52 | 100 | 200 | 10 | 0.4 | 70 | 5000 | -25 | 85 | PDIP-8 GW |
| FOD2741BSDV | 0.6287 | Pb-free non AEC-Q and PPAP | Active | 1 | 2.47 | 2.495 | 2.52 | 100 | 200 | 10 | 0.4 | 70 | 5000 | -25 | 85 | PDIP-8 GW |
| FOD2741BSV | 0.598 | Pb-free non AEC-Q and PPAP | Active | 1 | 2.47 | 2.495 | 2.52 | 100 | 200 | 10 | 0.4 | 70 | 5000 | -25 | 85 | PDIP-8 GW |
| FOD2741BTV | 0.598 | Pb-free non AEC-Q and PPAP | Active | 1 | 2.47 | 2.495 | 2.52 | 100 | 200 | 10 | 0.4 | 70 | 5000 | -25 | 85 | PDIP-8 |
| FOD2741BV | 0.598 | Pb-free non AEC-Q and PPAP | Active | 1 | 2.47 | 2.495 | 2.52 | 100 | 200 | 10 | 0.4 | 70 | 5000 | -25 | 85 | PDIP-8 |

For more information please contact your local sales support at www.onsemi.com.

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