

## Product Overview

### FOD2742B: 8-PIN SOIC Error Amplifier Optocoupler

For complete documentation, see the data sheet.

The FOD2742 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 FOD2742, 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 small outline package.

### Features

- Optocoupler, precision reference and error amplifier in single package
- 2.5V reference
- CTR 100% to 200%
- 2,500V RMS isolation
- UL approval E90700
- BSI approval 8661, 8662
- VDE approval 136616
- CSA approval 1113643
- Low temperature coefficient 50 ppm/&deg;C max
- FOD2742A: tolerance 0.5%; FOD2742B: tolerance 1%; FOD2742C: tolerance 2%

For more features, see the data sheet

### Applications

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

### Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	V <sub>REF</sub> Tolerance (%)	V <sub>REF</sub> (Min) (V)	V <sub>REF</sub> (Typ) (V)	V <sub>REF</sub> (Max) (V)	CTR (Min) (%)	CTR (Max) (%)	CTR tested @ I <sub>F</sub> (mA)	V <sub>CE(sat)</sub> (Max) (V)	BV <sub>CE0</sub> (Min) (V)	V <sub>ISO</sub> (Min) (V)	T <sub>OPR</sub> (Min) (°C)	T <sub>OPR</sub> (Max) (°C)	Package Type
FOD2742B	0.3013	Pb-free non AEC-Q and PPAP	Active	1	2.47	2.495	2.52	100	200	10	0.4	70	2500	-25	85	SOIC-8
FOD2742BR2	0.3564	Pb-free non AEC-Q and PPAP	Active	1	2.47	2.495	2.52	100	200	10	0.4	70	2500	-25	85	SOIC-8
FOD2742BR2V	0.4686	Pb-free non AEC-Q and PPAP	Active	1	2.47	2.495	2.52	100	200	10	0.4	70	2500	-25	85	SOIC-8
FOD2742BV	0.3289	Pb-free non AEC-Q and PPAP	Active	1	2.47	2.495	2.52	100	200	10	0.4	70	2500	-25	85	SOIC-8

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