

Optocoupler module current



Overview

It consists of collector-emitter voltage (VCE) and collector current (IC) as a function of the base current (IBASE). With optocouplers, the emitter forward current (IF) is approximately equivalent to the transistor's base current (IBASE) and is plotted as forward. There are many different applications for optocoupler circuits, so there are many different design requirements, but a basic design for an optocoupler providing isolation for example between two circuits, simply involves the choice of appropriate resistor values for the two resistors R1 and R2. An optocoupler, also known as photocoupler or opto-isolator, is a device which can transfer an electrical signal across two galvanically-isolated circuits by way of optical coupling. Unlike transformers or capacitors, which can only transfer AC signals across the isolation barrier, optocouplers can. An optocoupler (or opto-isolator) is a component that transfer signals between circuits using light.



Article Content

Mar 20, 2026

How to figure out the optimal LED current for an optocoupler

I have a optocoupler PS817 that I plan to use for a zero-crossing detection circuit for mains 230 V AC. But I do not

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Design Tutorial: Power-supply optocoupler basics

The use of an optocoupler also acts to break ground loops, and this functionality is valuable in eliminating common

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Optocoupler Tutorial and Optocoupler Application

When the current flowing through the LED is interrupted, the infra-red emitted light is cut-off, causing the photo

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ANO007 | Understanding Phototransistor Optocouplers

The ratio between the phototransistor collector current (I_C) and the IR-LED current (I_F) represents the main optocoupler parameter:

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Relay Modules and Optocoupler Modules | WAGO

We have a specialized portfolio of fixed-mount optocouplers for railway applications and shipbuilding. Thanks the wide variety of

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Optocoupler Tutorial and Optocoupler Application

When current flows through the Light Emitting Diode, on the input side (Transmitter) it emits infrared light. However, a

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AC Input Capable Photocouplers / Optocouplers | Renesas

Learn how an AC input capable photocoupler enables the input of an AC current using two LEDs connected back-to-back on the

Apr 04, 2026

Explanation of Photocoupler / Optocoupler Specifications

General specifications for various usage environments including absolute maximum ratings and electrical characteristics are

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Optocouplers, Optoisolators | Isolators | DigiKey

Unlike mechanical relays, optocouplers offer solid-state switching with faster response times, longer

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Guidelines for reading an optocoupler datasheet

It consists of collector-emitter voltage (VCE) and collector current (IC) as a function of the base current (IBASE). With optocouplers,

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Optocoupler Circuits, Working, Characteristics, Interfacing

Optocoupler exhibit one very useful characteristic and that is its light coupling efficiency termed as current transfer

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What is Optocoupler and How it works?

What is Optocoupler and How It Works As we have already learnt about transistors, an ideal transistor will not allow

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Optocoupler

To create a more detailed model, connect the Optocoupler output directly to the base of an NPN Bipolar Transistor block, and set the

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Optocoupler Operation

Saturation Mode In saturation mode, the optocoupler output transistor is either turned fully "on" (saturation conditions), or fully "off"

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Guidelines for reading an optocoupler datasheet

As an isolator, an optocoupler can prevent high voltages from affecting the side of the circuit receiving the signal. Transferring signals

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Optocoupler module (859-744) | WAGO

Optocoupler module; Nominal input voltage: 12 48 VDC; Output voltage range 3 ...53VDC; Limiting continuous current: 4 A; 2-wire

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Optocoupler Circuits, Working, Characteristics, Interfacing

Optocoupler Characteristics Optocoupler exhibit one very useful characteristic and that is its light coupling efficiency

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Arduino Tutorial: HY-M154 / 817 / PC817 Optocoupler Module

Tutorial on how to use HY-M154 / 817 optocoupler modules with Arduino. Includes wiring diagram and programming

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Isolating Circuits From Your Arduino With Optocouplers

A Optocoupler also called a photocoupler, optical isolator or opto-isolator is a small chip that transfers signals between two isolated

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Optoelectronics: Optocouplers

A commercial optocoupler consists of an infrared emitting diode and a photodetector separated by an optically

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Optocoupler

This block represents an optocoupler using a model that consists of the following components: An exponential light-emitting diode in

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Optocoupler: Its Types and Various Application in DC/AC Circuits

Applications of Optocoupler As discussed before few Optocoupler used in DC circuit and few Optocoupler used in AC

Jul 05, 2026

How to Use an Optocoupler to Pass Signals Between Controllers at ...

How to Use an Optocoupler to Pass Signals Between Controllers at Different Voltages:
This tutorial makes use of the 4N25

Contact Us

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