

# **OKI** electronic components

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## **OCM 2X0, 2X1 SERIES**

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### **Bidirectional Optical MOS Relay**

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#### **GENERAL DESCRIPTION**

The OCM2X0 and OCM2X1 Series are bidirectional (AC) optical MOS relays. The input portion is a GaAs infrared light emitting diode. The output portion uses a combination of silicon VDMOS (Vertical Diffusion MOS) FETs and silicon photovoltaic devices. An integrated optical coupler performs the isolated I/O switching action; a 5-mA or 10-mA low-level input can control the device's on/off function. The device is encased in an extremely small 6-pin plastic DIP or F-type (gull-wing) package.

The optical MOS relay switch may be used in applications that currently use mechanical relay switches, but offers smaller size, noise-free switching, and electronic circuit compatibility because of its non-mechanical operation. Optical MOS relay switches also dissipate less power than equivalent bipolar devices at lower switching frequencies.

#### **FEATURES**

- Low offset voltage
- Large range of current control
- Non-contact, optical operation
- No chattering or switch bounces
- Electronic circuit compatibility
- No mechanical switching noises
- Small size
- Low "on" resistance
- High isolation voltage (4 kV for the OCM2X1)

#### **APPLICATIONS**

- Computer cards and portable computing applications (such as PCMCIA cards)
- Telecommunications equipment
- Measurement equipment
- Home electronics
- Automatic meter reading equipment
- Other applications requiring small size or high performance
- Other applications requiring non-contact switches