



Figure 1. Circuit for Relay Discrete CAN with Isolated Wake-up Detection Based on ISOM8113-Q1

## Design Considerations

- [\[FAQ\] What is an Opto-emulator?](#) | [\[FAQ\] Opto-Emulator FAQ's](#) | [\[FAQ\] What are the benefits?](#)
- Allows for automotive low-power CAN FD transceiver with discrete, isolated, WAKE and Sleep Mode
- Performance upgrade from traditional optocouplers; allows tight CTR performance with no LED aging.
- [Introduction to Opto-Emulators](#)
- [Opto-emulators explained: Why you should upgrade your optocoupler technology](#)

Need additional assistance? Ask our engineers a question on the [TI E2E™ Isolation Support Forum](#).

## Recommended Parts

### Transistor Output Opto-emulators

Automotive Part Number	Input Type	Output Type	V <sub>F</sub> (MAX)	I <sub>F</sub> (MIN)	CTR
<a href="#">ISOM8113-Q1</a>	DC Input	Open-collector / transistor output	1.4V	700μA	375% to 560%
<a href="#">ISOM8118-Q1</a>	AC Input		1.5V		

### Digital Isolators

Automotive Part Number	Channel Count	Voltage Range	Data Rate	Features
<a href="#">ISO6463-Q1</a>	3 forward / 1 reverse	2.25 - 5.5V	150Mbps	High CMTI / Reinforced and basic isolation / Cost Optimized
<a href="#">ISO6763-Q1</a>	4 forward / 1 reverse	1.71- 5.5V	50Mbps	

To find a pin-to-pin alternative to the optocouplers in your design, search TI's [cross reference tool](#).  
For more opto-emulators, browse through the [online parametric tool](#).

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