



Summary

The following shows the implementation of a noise suppression circuit to eliminate sharp voltage spikes.

Description

Many applications require driving high current or high voltage inductive loads. Switching these loads can give off enough noise to affect the operation of the QED board. Common symptoms include board resetting and program malfunctions.

The following circuit (Figure 1) is an example of a load switching application using relays to switch an AC inductive load. The application implements a noise suppression circuit comprised of an RC suppression P7136-ND).

protection circuit in parallel with a Panasonic ZNR Transient/Surge Absorber. These additions to the switching circuit eliminate sharp voltage spikes. The RC values shown below should work for most applications. Their purpose is to smooth out spikes generated by inductive kickback. The ZNR limits the voltage of the spikes.

These components will also work for DC loads. The ZNR must be chosen for the voltage being used. For 120 VAC, use an ERZ-C05DK201U (DIGI-KEY part number P7060-ND). For 12 VDC, use an EZR-C05DK180 (DIGI-KEY part number P7136-ND).

Please contact Melody Liu at Mosaic Industries at (510)790-1255 if you have any additional questions about the use or implementation of this circuit.

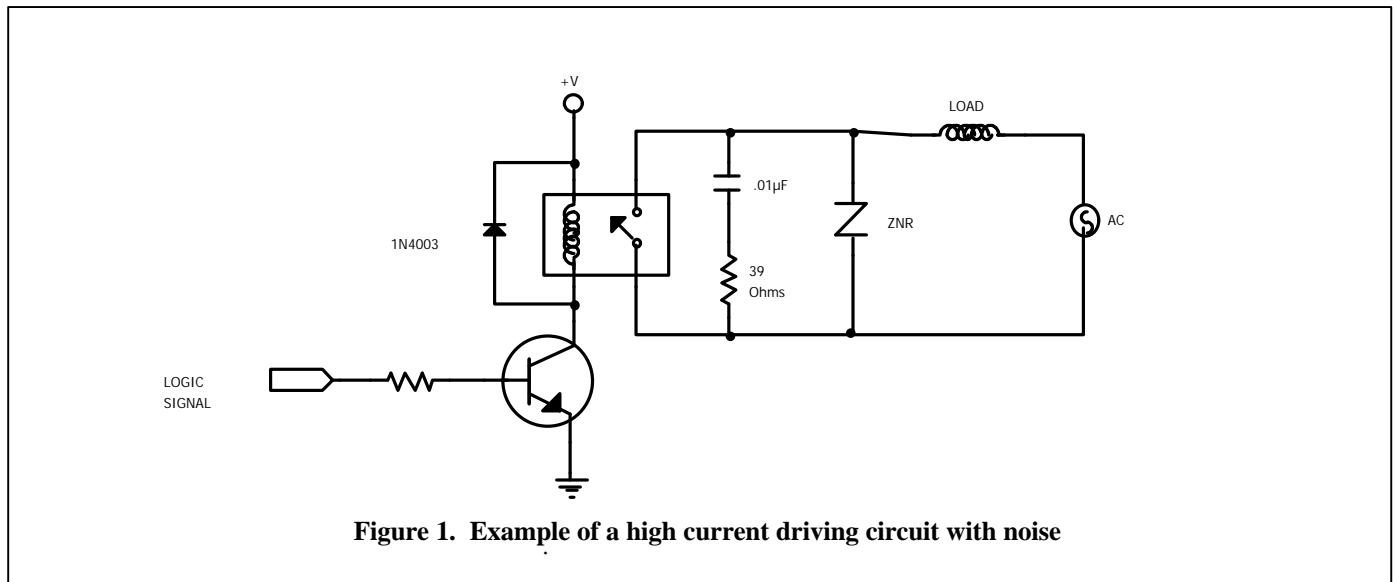


Figure 1. Example of a high current driving circuit with noise

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