

In This Issue

[April 1 Story](#)

[Foolproof Circuits](#)

Quick Links

[Sensor Selector Guide](#)

[Isolator Selector Guide](#)

[Online Store](#)

[Contact Us](#)

Japan Earthquake

NVE distributors in Japan report everyone safe following the devastating earthquake and tsunami. They continue their work despite power shortages, traffic jams, and long commutes. Contributions to relief efforts can be made to the [American Red Cross](#).

Earth Day April 22

With Earth Day coming up, a reminder that virtually all NVE sensors and isolators are available in REACH, RoHS, and WEEE-compliant lead-free packages.

Most parts are also available in tin-lead versions for customers who don't have environmental constraints and need tin-lead reliability or solderability.

**RoHS
COMPLIANT**

Background Music



"Transistors Gone Wild" by The Network is NVE's current telephone background music.

See the April 1 story at right for more background on the background music.

Editor's Note: We've updated the newsletter format to be more MS-Outlook friendly with more compatible images. Reader [comments](#) are always welcome.

NVE's Musical Influence Grows

April 1—Nestled in bucolic Eden Prairie, Minn., NVE Corporation is an unlikely spot for arguably one of the strongest influences in popular music.

But savvy bands and agents know that a spot on NVE's [telephone system background music](#) can thrust acts into the spotlight almost overnight, and the [editorial office](#) of NVE's acclaimed *Sensor and Isolator News* is deluged with demos.



Music industry insiders credit NVE's use of "Transistors Gone Wild" and "Supermodel Robots" by The Network with popularizing the band. The Network is widely believed to be a project of Greenday, although members of Greenday refuse to confirm their participation.

Green Day frontman Billie Joe Armstrong bristled when asked about NVE's role in The Network's success:

"Green Day might have nothing to do with The [expletive] Network, and if we did, we wouldn't have sold out to get on NVE's hold music. Besides, everyone knows NVE makes spintronics, and Transistors Gone Wild is about [expletive] old-fashioned charge-based electronics, not spintronics."

For its part, NVE refuses to be drawn into a war of words with Armstrong. The company says it doesn't know if The Network songs were tailored to NVE, noting that spintronics are **like** transistors gone wild because they perform some of the same functions as transistors, only better.

"We don't doubt Mr. Armstrong knows the difference between charge- and spin-based electronics," an NVE spokesman concluded.

[<NVE Telephone Background Music>](#)

April Fool's Day Application Corner

Foolproof Sensor Circuits

April Fool's day is a good time to think about the jokers who short-circuit sensor outputs or connect power supplies backwards.

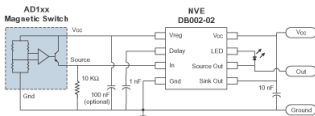
The unique NVE DB002-02 IC provides short-circuit protection, reverse battery protection, and automatic thermal shutdown as well as signal processing, so sensor systems can be virtually foolproof.

Click on our [new video](#) for an overview of these handy parts:

Foolproofing Sensor Circuits

The eight-pin SOIC is designed to work with NVE's AD1xx-Series GMR switch magnetic sensors or any current sourcing or CMOS/TTL output sensor element. Some customers even use the IC to ruggedize inductive or photo sensors.

The DB002-02 provides a sourcing or sinking output with up to 300 mA. Integrated transient protection makes the circuit especially useful for driving capacitive or inductive loads. A typical circuit is illustrated below:



The LED is driven with 3 mA when the output is on. Shutdown delay after a short-circuit is set by the 1 nF capacitor. A larger capacitor can be used for a longer delay.

A 10 nF minimum bypass capacitor is recommended between Vcc and ground. Vreg is a regulated 5 volt output provided by the DB002-02 to power the sensor and other components in the assembly. For noisy environments, Vreg can be bypassed with up to a 100 nF capacitor.

[<E-mail the Sensor Applications Desk>](#)

[<DB002-02 Data Sheet \(.pdf\)>](#)

Buy Online
\$9.95 shipping