

## IX4351NE 9A Low Side SiC MOSFET & IGBT Driver

- Separate 9A peak source and sink outputs
- Operating Voltage Range: -10V to +25V
- Internal negative charge pump regulator for selectable negative gate drive bias
- Desaturation detection with soft shutdown sink driver
- TTL and CMOS compatible input
- Under Voltage lockout (UVLO)
- Thermal shutdown
- Open drain FAULT output



The IX4351NE is designed specifically to drive SiC MOSFETs and high power IGBTs. Separate 9A source and sink outputs allow for tailored turn-on and turn-off timing while minimizing switching losses. An internal negative charge regulator provides a selectable negative gate drive bias for improved  $dV/dt$  immunity and faster turn-off.

Desaturation detection circuitry detects an over current condition of the SiC MOSFET and initiates a soft turn off, thus preventing a potentially damaging  $dV/dt$  event. The logic input is TTL and CMOS compatible; this input does not need to be level shifted even with a negative gate drive bias voltage. Protection features include UVLO and thermal shutdown detection. An open drain FAULT output signals a fault condition to the microcontroller.

The IX4351NE is rated for operational temperature range of  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ , and is available in a thermally enhanced 16-pin power SOIC package.

