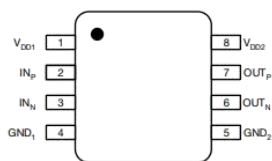




High Thermal Stability Isolation Amplifier



Isolation amplifiers are designed to provide electrical isolation between their input and output, preventing high voltage from reaching sensitive components and ensuring user safety. By isolating the input from the output, they also help to eliminate ground loops and reduce noise, enhancing the overall signal integrity.

APPLICATION EXAMPLE

In the proposed system, an isolation amplifier is used in combination with a shunt resistor for current measurement, as shown in Fig.1 and a voltage divider for high voltage monitoring, as shown in Fig. 2 and Fig. 3. The isolation amplifier ensures that the signals are accurately transmitted to the measuring equipment without interference from high voltage or noise.

APPLICATIONS

- Isolated current measurement in:
 - Motor control applications
 - Power supplies
 - Solar and wind energy storage systems
 - Charging stations and EV powertrain
 - Inverter and converters
 - Battery management
 - 48 V board net

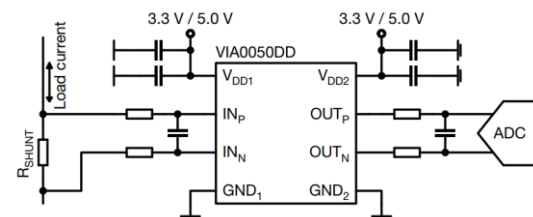


Fig. 1

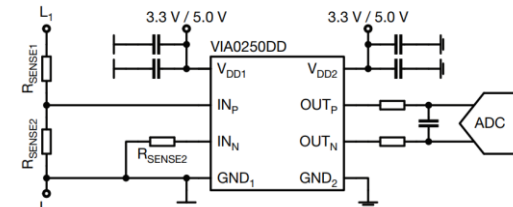


Fig. 2

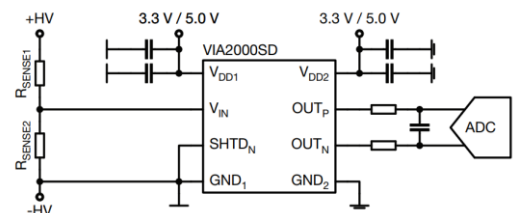


Fig. 3

PART NUMBER	ISOLATION RATING (kV)	LINEAR INPUT RANGE (mV)	MOISTURE SENSITIVITY LEVEL	TEMPERATURE (°C)	AUTOMOTIVE	PACKAGE TYPE	SPQ
VIA0050DD	5	-50 to +50	Level 3	-40 to +125	No	SOP-8 (300 mil)	1000
VIA2000SD	5	100 to 2000	Level 3	-40 to +125	No	SOP-8 (300 mil)	1000
VIA0250DD	5	-250 to +250	Level 3	-40 to +125	No	SOP-8 (300 mil)	1000