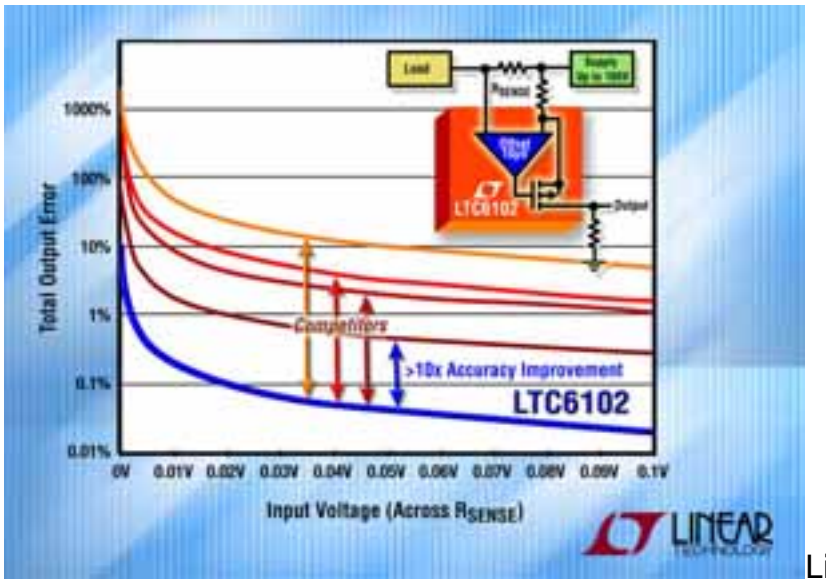
105V High Side Current Sense Amplifier with 10uV Offset and Zero Drift



Linear Technology announced the LTC6102, the most precise high side current sense amplifier available, according to the company. Maximum input offset voltage is 10 uV and it can accept differential sense voltages up to 2V. The resulting 106 dB of dynamic range allows it to resolve micro-amps from amps of current. The precision of the device is bolstered by a near zero guaranteed input offset drift of less than 50 nV/°C and a guaranteed input bias current of less than 3 nA. External resistors, selected by the designer, determine gain, gain accuracy and gain drift, and using precision resistors enables gain accuracy better than 99%. The topology allows the designer to customize power consumption, response time and the input/output impedance characteristics for the application. Two versions provide the choice of common mode voltage: the LTC6102 operates with inputs up to 70V, and the LTC6102HV operates with inputs up to 105V. Both versions are in full production, with prices starting at $1.72 each in 1,000-piece quantities.
Linear Technology
408-432-1900, www.linear.com [1]

Click Here to view the datasheet:
http://www.linear.com/pc/productDetail.jsp?navId=H0,C1,C1154,C1009,C1077,P38178 [2]

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