Low-Dropout Voltage Regulator from Diodes Inc. Reduces Component Count and Saves Space

Diodes Inc. has introduced a single-channel low-dropout fast-transient linear regulator with fixed output voltage of 5V and +/-1% accuracy. The new low-dropout regulator integrates the voltage divider to reduce board space and external component count, enabling easier layout and reducing the opportunities for premature board failure.

The AP7335A is primarily targeted at a range of home consumer and computing applications including TVs, set-top boxes and multifunction monitors, but is also suitable for battery-powered devices such as portable media players, portable game consoles and tablets.

The device’s low dropout voltage of 150mV at 300mA output (maximum) enables the use of a 5.5V supply for a fixed 5V output with a good safety margin, thereby reducing power loss under full load. A key feature of the AP7335A is its quiescent current (typical) consumption of only 35uA across the entire input range, which reduces power consumption and improves efficiency and battery life for portable applications. In addition to this, the device’s EN (enable) function allows the use of a 300mA low dropout regulator that can be turned off for further power savings.

To prevent IC damage in fault conditions, increasing system stability and extended application runtime, the device also integrates built-in current-limit and short-circuit and thermal-shutdown protection functions.

The AP7335A is available in SOT25 and DFN2020-6 packages and is priced at $US0.08 in quantities of 10k.

For further information visit the Company's website at http://www.diodes.com [1].

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Links:
[1] http://www.diodes.com