ICs Eliminate Sense-Resistor Power Loss in Standby

Power Integrations, a leader in high-voltage integrated circuits for energy-efficient power conversion, introduced SENZero, a family of ICs that disconnect sense resistors from high-voltage rails during standby or remote-off conditions. SENZero devices eliminate sense resistor power losses in standby mode and reduce total system power consumption, helping to meet the stringent demands of energy-conscious equipment makers and efficiency standards regulators.

Product features include integrated 650 V MOSFETs, high differential surge withstand, integrated gate drive and protection, and high SOURCE pin differential voltage withstand. SENZero enables high-voltage sense resistors or resistor dividers connected to the DC high-voltage rail in Power Factor Correction (PFC) and/or power conversion stages of a power supply to be disconnected during no-load or standby conditions to reduce power consumption. This allows functional blocks within the power supply to be shut down or disabled so that they do not draw power unnecessarily when the PSU is not in its full operation mode. When used in this manner for PC or TV power supplies, SENZero is able to shut down the main power while keeping standby power on. The device is also suitable in other high-power applications such as laser printers, appliances, servers and networking equipment, and any other power supply where no-load performance or standby consumption is tightly regulated.

Comments Edward Ong, product marketing manager at Power Integrations: “Energy-efficiency regulators are constantly challenging power supply engineers to comply with increasingly stringent efficiency requirements, such as EuP Lots 6 and 7, and 80 PLUS. SENZero ICs – particularly when used in conjunction with Power Integrations’ recently released CAPZero X capacitor discharge ICs – allow engineers to quickly adapt existing designs to reduce power consumption in standby mode and cost-effectively bring them into compliance with new regulations.”

SENZero is available in two- and three-channel versions according to application requirements. For designs that require more than three disconnect channels, or for designs with layout or routing challenges, designers can use multiple SENZero ICs to meet their needs.

SENZero devices are available now in an SOIC-8 package at $0.28 each for 10,000-piece quantities. Full technical details, including the product datasheet, design ideas, and introductory video, are available now on the Power Integrations website at www.powerint.com/senzero [1].

Source URL (retrieved on *05/20/2013 - 10:04am*):
http://www.ecnmag.com/product-releases/2010/08/ics-eliminate-sense-resistor-power-loss-standby?qt-video_of_the_day=0

Links:
[1] http://www.powerint.com/senzero