Voltage Regulators

Siliconix incorporated, an 80.4%-owned subsidiary of Vishay Intertechnology, announced the latest entry in its series of low-dropout voltage regulators. The new Vishay Siliconix Si9183BT is designed to provide power to the signal processing circuitry in digital cell phones and computers, improving over similar products on the market with its low-dropout performance and fast transient response across all line and load conditions. Specified for input voltages between 2 V and 6 V, the Si9183BT is offered in seven low-noise versions with fixed output voltages from 1.5 V to 5 V. An adjustable output version, the Si9183BT-AD, is also available. To provide manufacturers with even more flexibility, the Si9183BT can be used with either ceramic or tantalum capacitors.

Typical dropout voltage for the Si9183BT at a 150 mA output current is 120 mV, prolonging battery life in cell phones, web phones, PDAs, portable instruments, and other systems powered by single- or multi-cell battery packs. Combining this dropout voltage performance with transient response typically less than 2 microseconds makes the Si9183BT ideally suited for use with fast slew-rate microcontrollers and DSPs.

Additional Si9183BT features include an ON/OFF feature that allows users to completely disable the device and save power when no output is required. Built on an advanced CMOS technology, the Si9183DT draws a lower level of current than bipolar or BiCMOS devices, and includes built-in short circuit and thermal protection. The Si9183DT also provides improved ripple rejection &#151 typically 60 db.

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