DC/DC Converters

DATEL's new BWR-5/3.3W Series mixed-voltage, dual-output (3.3 V and 5 V) DC/DC converters have many features including, individual 3.3V and 5V outputs, any combination of 3.3V load (to 7 Amps) and 5V load (to 6 Amps) to a total power of 33 watts, both outputs regulated with a single control loop, 12V (10-18V), 24V (18-36V), or 48V (36-75V) inputs, synchronous rectification delivers 88% efficiency and stable no-load operation, &#150 40 to 65 &#176 C ambient operation w/o derating and fully isolated (1500 Vdc) and I/O protected.
DATEL's new BWR-5/3.3, 33W Series mixed-voltage, dual-output (3.3V and 5V) DC/DC converters feature a unique output structure that does not &quotlimit&quot output current in the traditional manner. The 3.3V output can source any current from 0 to 7 Amps, and the 5V output can source any current from 0 to 6 Amps, as long as the total load does not exceed the 33 Watt limitation of the device package. Among other advantages, this power-sharing feature gives designers a &quotload polygon&quot (see attached) within which to work. It also enables fast moving designers to migrate a single proven power supply as they conceive newer systems with decreasing legacy 5V requirements and increasing 3.3V requirements.
Both 3.3V and 5V output stages exploit full synchronous rectification enabling these power converters to deliver an industry-leading 88% efficiency. High efficiency enables us to pack the full 33W of deliverable power into the industry-standard, 2 x 2 x 0.45 , 5-side shielded, metal case traditionally reserved for 20W units. 33W BWR's operate at full rated power over the &#150 40 to 65 &#176 C ambient temperature range and require no supplemental air flow.
Synchronous rectification also enables stable no-load operation - an important consideration for power-conscious applications in which selected partitions go into &quotsleep mode.&quot
BWR-5/3.3, 33W duals include all the I/O features informed designers have come to expect from DATEL DC/DC's: input pi filters, input overvoltage and undervoltage shutdown, output overvoltage protection, output current limiting, continuous short-circuit protection, and thermal shutdown. The functionality set includes VOUT trim, remote on/off control and an optional sync function.

Source URL (retrieved on *05/19/2013 - 8:28am*):
http://www.wirelessdesignmag.com/product-releases/2001/04/dc/dc-converters?qt-digital_editions=0