

New Products

Picor Introduces New ORing Family For Redundant Power Architectures

August 6, 2008

Picor, a subsidiary of Vicor Corp., announced the Cool-ORing™ family of full-function active ORing solutions (PI2121, PI2122, PI2123, PI2125) and discrete Active ORing controllers (PI2001, PI2002, PI2003). These devices address the requirements of redundant power architectures implemented in today's high-availability systems such as servers, high-end computing and telecom and communications infrastructure systems.



The Cool-ORing PI2121/PI2123/PI2125 are described as complete full-function active ORing solutions with integrated high-speed ORing MOSFET controllers and low on-state resistance MOSFETs that address a variety of redundant bus applications, providing low power dissipation while achieving fast dynamic response, typically within 160ns, to system level power source fault conditions. The PI2121 is an 8V, 24A solution suitable for -5Vbus applications, the PI2123 is a 15V, 15A solution suitable for -9.6Vbus applications and the PI2125 is a 30V, 12A solution suitable for 12Vbus applications.

The PI2121/PI2123/PI2125 devices are offered in small, high density, thermally enhanced 5 x 7mm land grid array packages, maintaining full current ratings over a wide range of operating temperature. The high level of density is enabled by integrating a very low on-state resistance MOSFET into each product. The typical on-state resistances are 1.5, 3 and 5.5mΩ respectively for the PI2121, PI2123 & PI2125. Each product can also be paralleled to address higher current requirements through a master/slave feature, enabling a scalable solution for a wide range of Active ORing requirements. The PI2121/PI2123/PI2125 detect normal forward, excessive forward, light load, and reverse current flow through their internal MOSFETs, and report fault conditions via an active low fault flag output. A temperature sensing function indicates a fault if the maximum junction temperature

exceeds 160°C. The under-voltage and over-voltage thresholds are programmable via external resistor dividers.

The full-function Cool-ORing solutions are available at \$1.98 for the PI2121/PI2123/PI2125 and \$2.18 for the PI2122 in 10,000-piece quantities.

The discrete Cool-ORing controllers are each available in two packages. The 3 x 3mm 10-lead TDFN is available at \$0.84 for the PI2001 and PI2003 and \$0.92 for the PI2002 at 10,000-piece quantities. The 8-lead SOIC package option is available at \$0.76 for the PI2001 and PI2003 and at \$0.83 for the PI2002 in 10,000-piece quantities.