

ROGERS CORPORATION

Power Electronics Solutions at Rogers Corporation

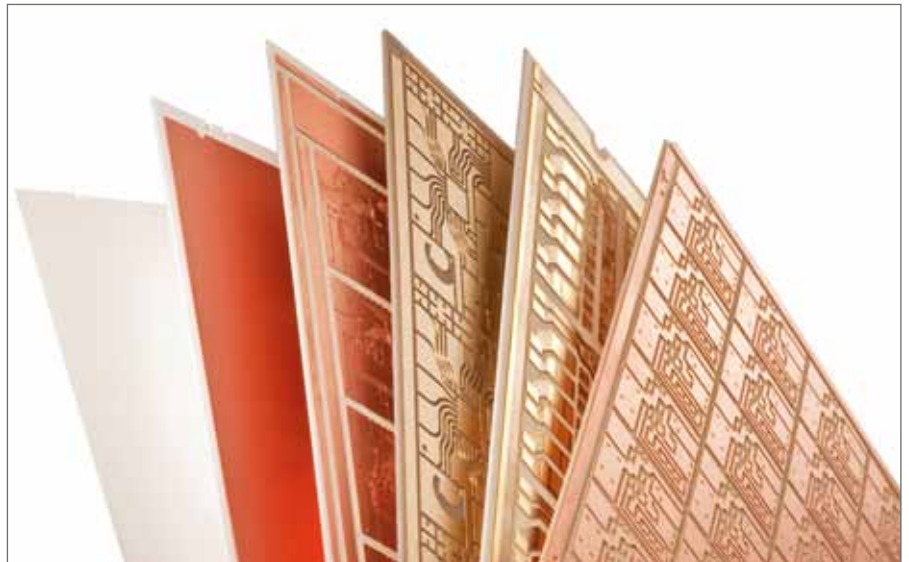
Rogers' advanced, customized components enable the performance and reliability of today's growing array of Power Electronics devices. Rogers' material technologies are significantly increasing efficiency, managing heat, and ensuring the reliability of critical devices used in converting energy into controlled and regulated power that can be used and managed. Rogers' Power Electronics Solutions division covers three major product lines:

ROLINX® busbars

Rogers designs and manufactures laminated and powder coated busbars which meet the most stringent requirements for rail traction converters, grid, wind and solar converters and drives for industrial applications. ROLINX® busbars feature low inductance, controlled partial discharge, high current capabilities and compactness. As the global leader in the world of laminated busbars, ROLINX®'s main differentiators are superb quality and reliability, electrical and mechanical expertise, co-engineering and flexible lead times.

curamik® ceramic substrates

curamik® ceramic substrates consist of pure copper bonded to a ceramic substrate such as Al_2O_3 , Zr doted Al_2O_3 , AlN or silicon based Si_3N_4 . Rogers provides two technologies to attach the substrate with



the copper. DBC (direct bond copper) – a high temperature melting and diffusion process where the pure copper is bonded



onto the ceramic and AMB (active metal brazing) – a high temperature process where the pure copper is brazed onto the ceramic substrate. The high heat conductivity of the ceramic as well as the high heat capacity and thermal spreading of the thick copper cladding makes curamik® substrates indispensable to power electronics.

curamik® micro-channel coolers

curamik® micro-channel coolers consist of several layers of pure copper with very fine structures. These layers create three-dimensional structures for cooling high performance electronics. The design of the different layers can be adjusted to customer-specific requirements. curamik® coolers are used for Laser Diode cooling, but also for the cooling of high-performance components, high brightness LED or solar-cell arrays.

