# Thermal Management at the Component and Board Level

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Modern electronic systems continue to shrink in size while increasing in power density, creating significant challenges in managing heat at both the component and PCB levels. By using electrically isolated, surface mount heat spreaders constructed from high conductivity substrates, designers can reduce component temperatures through efficient conduction. These devices provide a direct thermal pathway from heat generating components to ground planes or heat sinks while maintaining electrical isolation. This presentation provides engineers with practical, PCB level design guidance for improving system reliability through robust and manufacturable thermal management solutions.