

Molded chip scale package ideal for ultra-portable applications

The advertisement features a dark red to orange gradient background. At the top, the text 'Molded Chip Scale Packaging' is in white, with 'The Next Evolution in Technology' below it in a yellow, italicized font. The product name 'AOC2403' is in large white font, followed by 'For ultra-slim designs' in yellow. A list of three bullet points is on the left: '50% Lower Profile', 'Improved Robustness', and 'No PCB restrictions'. In the center, there are two 3D renderings: a thin, dark grey MCSP with four silver pads on its top surface, and a taller, tan-colored Standard CSP with four yellow die. Below the MCSP rendering is the text 'MCSP: 0.97 x 0.97 x 0.3mm'. At the bottom center is the Alpha & Omega Semiconductor logo, which consists of a stylized 'A' and 'O' followed by the company name.

Alpha and Omega Semiconductor Limited introduced the AOC2403 – the industry’s first Molded Chip Scale Package (MCSP) in a tiny 0.97mm x 0.97mm x 0.3mm power package. Compared to existing Chip Scale Package (CSP) solutions, MCSP reduces package height by 50 percent and improves the mechanical robustness of the package by protecting the encapsulated die with a layer of molding compound. The significant performance improvements of the MCSP technology make it ideal for the latest ultra-portable applications such as smart phones, tablet PCs, UltraBooks and other mobile hand-held devices.

MCSP can easily replace a standard CSP by offering the same footprint, pin-out, and pitch, with the benefits of a more rugged and ultra-thin package. The MCSP encapsulates AOS’s low on-resistance MOSFET silicon in a Green (halogen-free) molding compound, which end result is to give it a thinner and more robust structure to solve die chipping and placement issues associated with standard CSP products.

“The Molded Chip Scale Package offers an innovative solution to ultra-slim designs while improving the package robustness compared to existing CSP solutions. The innovative package, along with the low on-resistance AOS MOSFET technology, provides designers of ultra-portable systems with a compelling new power management solution.” said Peter Wilson, Director of Low Voltage MOSFETs at AOS.

AOC2403 is a 20V 95mOhm P-Channel MOSFET housed in a halogen-free MCSP. The package dimensions are 0.97mm x 0.97mm x 0.3mm. The AOC2403 is the cornerstone on which additional first-class MCSP products are being developed.

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Pricing and Availability

The AOC2403 is immediately available in production quantities with a lead-time of 12 weeks. The unit price for 1,000 pieces is \$0.35.

Alpha and Omega Semiconductor Limited

www.aosmd.com [1]

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