

Comchip Diodes in WLCSP (Wafer Level Chip Scale Package)

In light of new technology and exciting applications, design requirements cannot be satisfied by traditional wire bonding or soldering diode process any longer. Handheld devices now require lighter and thinner form but simultaneously demand greater battery capacity. Additionally, even the size of PCBs is getting smaller. The new challenge for electronic components manufacturers is not only improving a product's electrical capability but also shrinking its physical body dimension.

Comchip had been focusing on ultra-small diode assembly technology development for nearly a decade. We are very pleased to introduce the brand new full-pack Wafer Level Chip Scale Package (WLCSP). Utilizing this package technology, we were able to produce the smallest diode package in the world, the 01005 (0.4x0.2mm) package. Comchip's WLCSP is a full package with 6-sided epoxy protection. It is different from normal WLCSP bare die products or two-sided epoxy protection products.

The full-pack WLCSP technology breaks through many limits and obstacles in the discrete semiconductor industry. The advantages of WLCSP are smaller body dimension while maintaining the same power dissipation, higher power in the same package size, and better heat dissipation than wire or clip bonding process.

The WLCSP is a brand new package technique for discrete semiconductor parts and space limited application demands. This package is optimized by increasing of utilization ratio on a package and by reduction of the impedance of the package. It satisfies the demands of mainstream product in the market.

Following the success of 01005/DFN0402 and other full-pack WLCSPs, Comchip is going to develop more advanced discrete semiconductor parts that reflect the market's future demands.

Wire Bonding Process	WLCSP Process
	
	