

**MOTOROLA**

Semiconductor Products Sector

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PowerPC™

Engineering Bulletin

MC68302FC 132-Lead PQFP

Motorola is pleased to announce improvements in the manufacturability of 68302 products assembled in 132-lead PQFP. The manufacturability improvements consist of: 1) conversion to a non-MCR (Molded Carrier Ring) assembly process flow and 2) implementation of a new, improved trim and form tool. The non-MCR assembly process flow has already been implemented on other products, such as the 160-lead PQFP, and is currently running in volume production.

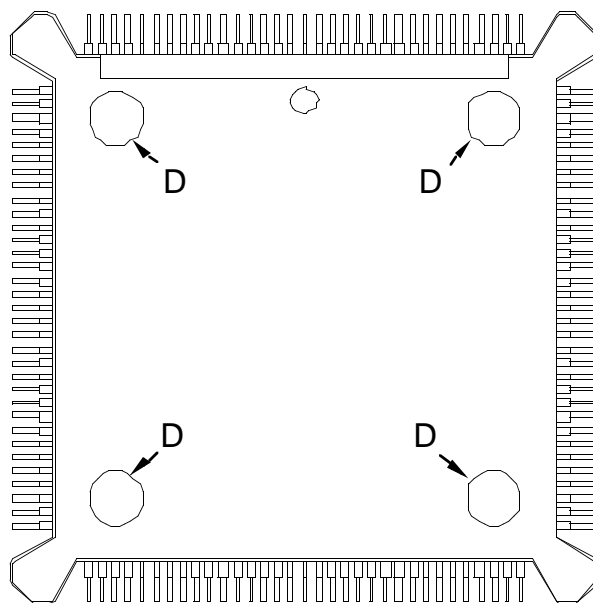
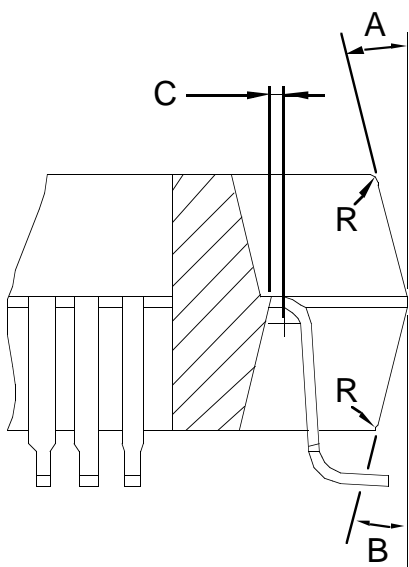
Extensive assembly characterization data including, but not limited to, bent leads, coplanarity, and test yield data, was collected to demonstrate either equivalent or improved overall performance. This data is available for review on customer request.

The implementation of the non-MCR manufacturability improvements will not change the lead frame internal to the package or any package construction materials. All dimensional requirements imposed by the existing product case outline will continue to be met. Some minor differences may be noticed on the 68302 products processed with non-MCR process and new trim and form. These cosmetic differences are shown on the following page.

This document contains information on a new product under development by Motorola. Motorola reserves the right to change or discontinue this product without notice.

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***Digital DNA™**
From Motorola




Feature	132ld MCR	132ld Non-MCR
Draft Angle A	7°	14°
Draft Angle B	4°	14°
Package Corner Radius R	0.008 in.	0.010 in.
External Lead Shoulder Length C	0.008 in.	0.011 in.
Mold Ejector Pin Marks on Top of Package D	0	4 (1 in each corner)

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