The background of the entire cover is a high-contrast, black and white photograph of a microelectronic circuit board. The board is densely packed with components, including integrated circuits, resistors, and capacitors. Various alphanumeric labels are visible on the board, such as 'IC22', 'IC27', 'C28', 'PORTAL 89368', 'D3007', and 'M014007'. The lighting creates a sense of depth and texture, highlighting the metallic surfaces and the intricate patterns of the circuitry.

ELECTRONIC PACKAGING, MICROELECTRONICS, — AND — INTERCONNECTION DICTIONARY

**CHARLES A. HARPER
MARTIN B. MILLER**

Electronic Packaging, Microelectronics, and Interconnection Dictionary

**Charles A. Harper
Martin B. Miller**

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It has been aging, microelectronics. The reason for this is that materials, as they are used in manufacturing, are quite different from those used for a material. Microelectronic acronyms are used in the situation, to make the systems dependent on the conditions to achieve this. This was a dictionary of a wide range of subjects and anyone in the process of the technology includes symbols, a constant dictionary has never been able to serve its role in this magnitude, we are regarding and

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½ inch long. Supplied as rope, it molds with excellent flow and surface appearance.

Bump A small metal mound or hump that is formed on the chip or the substrate bonding pad and is used as a contact in face-bonding. It is a means of providing connections to terminal areas of a device.

Bump Contacts (1) Raised areas on a device, such as the base, emitter, and collector of a transistor chip, that are used for alloying with pads on a substrate during the mounting and interconnecting operations. (2) Contacting pads that rise substantially above the surface level of the chip. (3) Raised pads on the substrate that contact the flat land areas of the chip.

Bumped Chip A chip that has on its termination pads a bump of solder or gold used for bonding to external contacts. This allows for bonding of all leads simultaneously as opposed to one at a time, as in wire bonding. *See also Gang Bonding.*

Bumped TAB Tape-automated bonding (TAB) wherein the raised solder bump is attached to the tape material instead of the bump being on the chip. *See also Tape-Automated Bonding.*

Bumped Tape *See Bumped TAB.*

Buried Channel A transfer channel beneath the surface of the semiconductor. *See also Channel.*

Buried-Channel Charge-Coupled Device (BCCD) A charge-coupled device that confines the flow of charges to a channel lying beneath the surface of the semiconductor. *See also Charge-Coupled Device.*

Buried Layer (1) A distinguishable region introduced under a semiconductor circuit element, such as under the collector region of a transistor, to reduce the series collector resistance. (2) In multilayer printed wiring boards, the inner conductor layers.

Buried Resistors Thick film resistors that are located on inner layers of multilayer substrates in order to reduce conductor lengths.

Buried Via A via that connects inner layers but does not extend to the surface of a substrate or board. *Also called hidden via.* *See Fig. 1.*

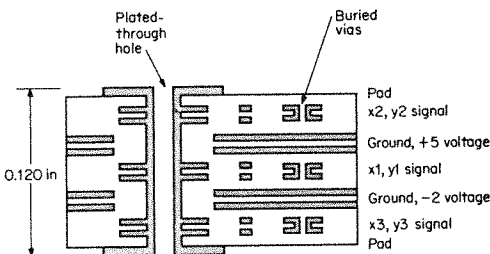


Figure 1: Buried Via

Burn-In Subjecting electronic components to elevated temperatures, normally 125°C, for an extended period of time, such as a commonly used standard of 168 hours, to stabilize their characteristics or cause failure to marginal devices.