

Module Handling Considerations

General Description

RO DC/DC and AC/DC converter modules have proven to be extremely rugged and are designed to meet MIL-STD-810D requirements. Also, once they're installed properly on a printed circuit board, they can take all the normal mechanical forces for circuit boards and circuit board mounted components. Reasonable care must be exercised, however, during all handling of converter modules, to prevent mechanical damage to the case or the electrical terminal pins.

Implementation

Storage

Modules should be kept in their original shipping containers to provide adequate protection until inserted into printed circuit boards.

Installation into Printed Circuit Board

Reasonable care must be exercised when inserting the pins of a module into the holes or sockets of a printed circuit board during production or prototype fabrication. The pins must all be properly aligned with the holes or sockets before pressure is evenly exerted to the surface of the module to seat it onto the board. Otherwise, over stressed or bent pins could result in external pin breakage, internal damage, or degradation of the module.

Removal from Printed Circuit Board

In soldered applications, solder must be carefully removed from the pin/pad connections and each pin must be observed to be mechanically free from its pad. Once the solder is adequately removed or for socket applications, the module must be removed using both hands, one on either end of the module, to carefully lift the module evenly off the board. While the pins are clearing the sockets or circuit board holes, the plane of the module baseplate must remain in parallel with the plane of the circuit board. Otherwise, the pins may be over stressed or bent resulting in degradation or failure.

Shipment of Modules

In the event that individual modules are shipped as a component and not in a circuit board assembly, adequate protection must be provided to the pins to prevent damage. Utilization of the original plastic shipping tube from Astrodyne is recommended.

Related Topics

AP-2 Mechanical Mounting Considerations
AP-18 Board Layout Considerations and Recommendations
AP-19 Hole Dimensions and Socket Information