

CR-15 Package Handling and Mounting Procedure

Rev. V5

Mounting Hardware / Torque Sequence

Size #2 socket head cap screws and medium split lock washers are recommended. The mounting hardware should initially be installed finger tight (approximately 4 inch-ounces), followed by a controlled torque of 48 inch-ounces, in an alternating torque sequence. The use of two separate calibrated torque screw drives is recommended for this purpose, especially in high volume applications. Manual drive is acceptable, but electric or pneumatic drive torque tools are preferred to minimize operator fatigue. Incorrect installation torque may cause inconsistent electrical and thermal performance and lead to device failure.

Package Lead Soldering Recommendations

A 63/37 tin/lead eutectic is the preferred solder for pre-tinning and attaching the package lead to the surrounding circuit board. Since the typical thickness of gold plating on the package leads is 50 micro-inches minimum, pre-tinning of the package leads may be necessary to reduce gold embrittlement in the solder joint. Pre-tinning will result in the highest reliability connection, especially when solder volumes are relatively low. The necessity to pre-tin will depend on the particular application and the soldering equipment being used.

For applications where surface mount components are to be installed after the CR-15 installation, this package will not be damaged when subjected to typical convection or IR over reflow profiles. M/A-COM Tech Application Note M538 may be used as a guide for maximum allowable reflow time and temperature.

Alternatively, the package leads may be individually soldered. Whether an iron or hot gas soldering equipment is used, care should be taken to insure that the temperature is well controlled and the assembly environment is electric static discharge (ESD) safe.