

INTRODUCTION

Nemco CGT, MPT and SPT Series capacitors are JEDEC Moisture Sensitivity Level (MSL) 3. These parts are moisture sensitive and need to be handled in accordance to the JEDEC MSL 3 guidelines to avoid damage from moisture absorption.

This application note includes a link to the specific JEDEC guideline – but guidelines are designed for a wide breath of surface mount devices. Where necessary, this application note will provide additional guidance specific to the Nemco CGT, MPT and SPT Series of Tantalum and Polymer Tantalum capacitors.

JEDEC Guidelines:

IPC/JEDEC J-STED-0033B.1 "Handling, Packing, Shipping and Use of Moisture/Reflow Sensitive Surface Mount Devices" can be found at the following link: <http://www.jedec.org/sites/default/files/docs/jstd033b01.pdf>

Packing:

All Nemco parts are dry packed according to guidelines covered in Section 3; and specified by MSL level in Table 3-1. Due to typical packaging of capacitors – example Tape and Reel – the HIC card and labeling may not be included as specified in the JEDEC guidelines.

Floor Life:

Floor Life is the time from which the products are removed from its moisture sealed packaging. Based on composition of Nemco CGT, MPT and SPT Series of capacitors; the floor life is 48 hours at conditions of <30°C/60% RH, or stored at <10% RH.

Section 4.1.2.1 provide detailed treatment for calculating floor life one a part has been removed from its moisture sealed packaging.

Recommended Usage:

Nemco CGT, MPT, and SPT Series capacitors should go through reflow for board assembly within 48 hours at factory conditions of <30°C/60% RH, or stored at <10% RH. If both of these conditions are not met, backing is required before board mounting.

For specific reflow requirements and recommendations, refer to the individual datasheets for each of the Nemco CGT, MPT and SPT Series.

Baking Guidelines:

Section 4 provides a general baking guideline for different package body thickness across the wide range of non-hermetic surface mount devices; and for different situations. The following recommendations are specific to Nemco Tantalum capacitors.

- For Nemco CGT, MPT and SPT series of capacitors, we recommend bake out using 35°C in a dry oven for 4-8 hours.
- We do not encourage removing them from the reels because there is potential for reversing polarity when re-packaging.