



[www.niccomp.com](http://www.niccomp.com) | technical support: [tpmg@niccomp.com](mailto:tpmg@niccomp.com)

Date: February 2014

## **FLAMMABILITY CHARACTERISTICS**

### **PRODUCTS: CERAMIC CAPACITORS**

#### ***SERIES: RADIAL, AXIAL LEADED AND SURFACE MOUNT***

#### **Flammability:**

Leaded ceramic capacitors will typically contain one or more of the following polymers\* that can be characterized concerning their flammability characteristics.

1. NCM & NCMA series; Radial and Axial leaded MLC ceramic capacitors  
Epoxy resin encapsulation meets UL94V-0; it's oxygen index is 35%
2. NCD series; Radial leaded ceramic disc capacitors  
Phenolic resin encapsulation does not meet UL94V flammability requirements; it has an oxygen index is 48%
3. NMA, NMC, NMC-H, NMC-L, NMC-M, NMC-Q and NCA series; Surface mount ceramic capacitors and arrays do not contain any polymers and can meet the requirements of UL 94
4. NMC-P series; Surface mount ceramic chip capacitors contain polymer (*flexible layer*) covering base metallization on end terminals. The polymer used in NMC-P series meets UL 94 horizontal burning (HB) test, but does not meet UL 94 vertical ratings, V2, V1 and V0

*\* - Flammability testing, such as the Japanese test (JIS C0061-1985 Fire Hazard Testing Part 2: Needle Flame Test) or UL94 (Tests for flammability of plastic materials), covers the flammability characteristics of components containing polymers. When applied to electronic components both of these tests are chiefly intended for resin encapsulated components.*

Prepared by, TPMG department, NIC Components Corp, [tpmg@niccomp.com](mailto:tpmg@niccomp.com)