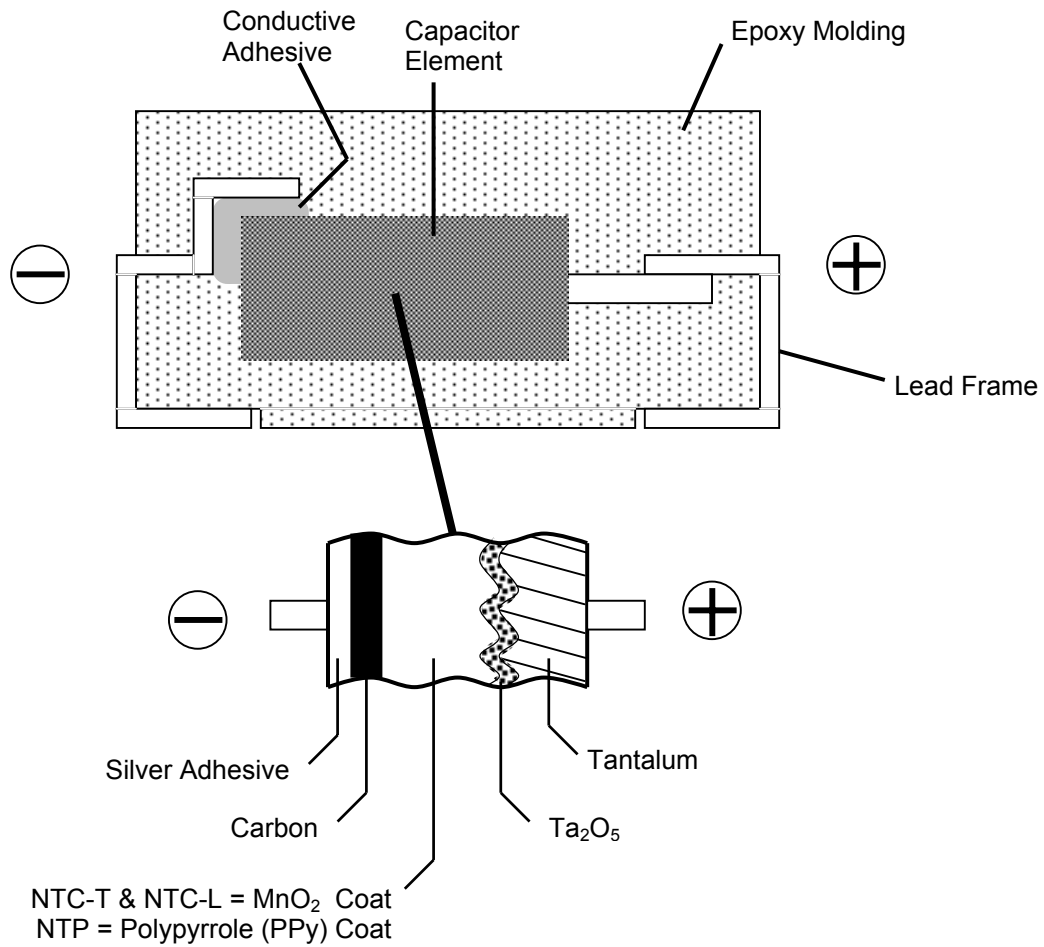


## COMPONENT CONSTRUCTION

**PRODUCT: SURFACE MOUNT TANTALUM ELECTROLYTIC CAPACITORS**

**SERIES: NTC-T, NTC-L, NTP**



## COMPONENT CONSTRUCTION

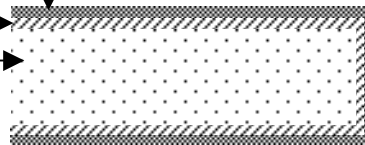
**PRODUCT: SURFACE MOUNT TANTALUM ELECTROLYTIC CAPACITORS**

**SERIES: NTC-T, NTC-L, NTP**

Sub: Lead Frame material composition

**Lead Frame Composition**

*Finish: 100% Sn 3~5um*  
*Barrier: Nickel Plate 0.5~1.0um*  
*Base: 42 Alloy*  
*(40.5 ~42.5% Ni, 56.4~59.4% Fe,  
<0.8% Mn, <0.3% Si and <0.05% C)*



- ❖ Lead frame material composition shown above is compatible with **reflow** and **flow-wave** soldering techniques
- ❖ **100% Sn** finish since February 2002 [ PCN Link ]

## COMPONENT CONSTRUCTION

**PRODUCT: SURFACE MOUNT TANTALUM ELECTROLYTIC CAPACITORS**

**SERIES: NTC-T, NTC-L, NTP**

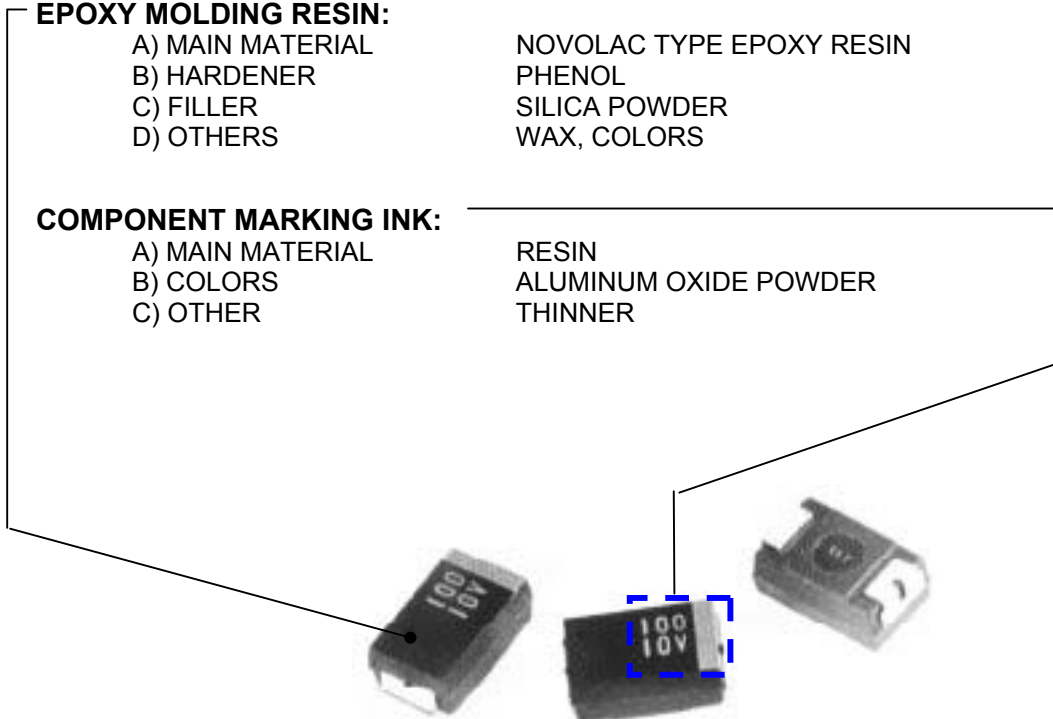
### COMPONENT BODY:

#### **EPOXY MOLDING RESIN:**

- |                  |                          |
|------------------|--------------------------|
| A) MAIN MATERIAL | NOVOLAC TYPE EPOXY RESIN |
| B) HARDENER      | PHENOL                   |
| C) FILLER        | SILICA POWDER            |
| D) OTHERS        | WAX, COLORS              |

#### **COMPONENT MARKING INK:**

- |                  |                       |
|------------------|-----------------------|
| A) MAIN MATERIAL | RESIN                 |
| B) COLORS        | ALUMINUM OXIDE POWDER |
| C) OTHER         | THINNER               |



**NIC P/N ... Description**

**NTC-T** ... SMT MnO<sub>2</sub> Cathode, Tantalum Electrolytic Capacitors, Lead-Free

**NTC-L** ... SMT MnO<sub>2</sub> Cathode, Low ESR Tantalum Electrolytic Capacitors, Lead-Free

**NTP** ... SMT Polymer Cathode, Low ESR Tantalum Electrolytic Capacitors, Lead-Free

Please be advised the above NIC product series meet the EU "RoHS" and "WEEE" restriction requirements as identified below\*:

- These components have 100% Tin (Sn) plate finish over Nickel (Ni) barrier over base:
- 42 Alloy (40.5 ~42.5% Ni, 56.4~59.4% Fe, <0.8% Mn, <0.3% Si and <0.05% C)
- \* - Per EU (European Union) directives on WEEE (Waste Electrical and Electronic Equipment) and RoHS (Restriction Of use of certain Hazardous Substances) materials
  - ❑ <0.1% by weight for Lead
  - ❑ <0.1% by weight for Hexavalent chromium
  - ❑ <0.01% by weight for Cadmium
  - ❑ <100PPM for Mercury
  - ❑ <0.1% by weight limit on Brominated flame retardants:
    - Polybrominated biphenyls (PBB)
    - Polybrominated diphenylethers (PBDE)

The above NIC components do not contain:

- ❑ Chlorinated organic compounds
- ❑ Polychlorinated biphenyls (PCB)
- ❑ Polychlorinated naphthalenes (PCN)
- ❑ Chlorinated paraffins (CP)
- ❑ Mirex (Perchlordecone) nor other chlorinated organic compounds
- ❑ Tetrabromobisphenol-A-bis-(2,3-dibromopropylether) (TBBP-A-bis) nor other brominated organic compounds,
- ❑ Tributyl tin compounds
- ❑ Triphenyl tin compounds
- ❑ Asbestos
- ❑ Azo compounds
- ❑ Formaldehyde
- ❑ Polyvinyl Chloride (PVC) nor PVC blends

SIGNED: Jim Wright, NIC Components Corp.

