**HIGH–FREQ ALUMINUM ELECTROLYTIC**

**HD SERIES**

**SUBMINIATURE**
*(Radial Lead, Horizontal Deflection)*

The NTE HD series of aluminum electrolytic non–polarized capacitors are designed specifically for horizontal deflection current correction where high frequency and high ripple current occur.

**RATINGS**

- **Capacitance Range:** 1.0µf to 10µf
- **Tolerance:** ±20%
- **Voltage Range:** 25 Volts and 50 Volts

**PERFORMANCE SPECIFICATIONS**

**Operating Temperature Range:**

−25°C to +85°C (−13°F to +185°F)

**Leakage Current:** I ≤ 0.2CV (measured after 5 minutes of applied rated voltage)

\[ I = \text{Leakage Current} \ (\mu A) \]

\[ C = \text{Nominal Capacitance} \ (\mu f) \]

\[ V = \text{Rated Voltage} \ (V) \]

**Capacitance Tolerance:** ±20% (M) measured at +20°C (+68°F), 1kHz

**Load Life:** 1000 Hrs @ 12V DC, +70°C (+158°F), at specified ripple current

Leakage Current: Initial specified value or less

Dissipation Factor: < 200% of specified value

Capacitance Change: Within ±15% of initial value

**Shelf Life:** 500 Hrs @ +85°C (+185°F), no voltage applied

Leakage Current: Initial specified value or less

Dissipation Factor: < 200% of specified value

Capacitance Change: Within ±15% of initial value

**ORDERING INFORMATION**

HD 4.7 M 50

**MECHANICAL SPECIFICATIONS**

**Lead Solderability:**

Meets the requirements of MIL–STD 202, Method 208

**MECHANICAL SPECIFICATIONS (Cont’d)**

**Marking:**

Consists of series type, nominal capacitance, rated voltage, temperature range, anode and/or cathode identification, NTE identification.

**Recommended Cleaning Solvents:**

Methanol, isopropanol ethanol, isobutanol, petroleum ether, propanol and/or commercial detergents. Halogenated hydrocarbon cleaning agents such as Freon (MF, TF, or TC), trichloroethylene, trichloroethane, or methylchloride are not recommended as they may damage the capacitor.

**CASE SIZE AND DIMENSIONS:**

**HD Series Dimensions:**

**Diameter (D Ø) x Length (L):** mm

<table>
<thead>
<tr>
<th>Capacitance (µf)</th>
<th>25V and 50V</th>
<th>Ripple Current* (A_{p–p})</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>12.5 x 20</td>
<td>2.0</td>
</tr>
<tr>
<td>2.2</td>
<td>12.5 x 25</td>
<td>3.0</td>
</tr>
<tr>
<td>3.3</td>
<td>16 x 25</td>
<td>4.0</td>
</tr>
<tr>
<td>4.7</td>
<td>16 x 31.5</td>
<td>5.0</td>
</tr>
<tr>
<td>5.6</td>
<td>16 x 31.5</td>
<td>6.0</td>
</tr>
<tr>
<td>6.8</td>
<td>16 x 35.5</td>
<td>7.0</td>
</tr>
<tr>
<td>8.2</td>
<td>18 x 35.5</td>
<td>8.0</td>
</tr>
<tr>
<td>10.0</td>
<td>18 x 40</td>
<td>9.0</td>
</tr>
</tbody>
</table>

* Allowable ripple current @ 70°C, 12V DC, and 15.75kHz

<table>
<thead>
<tr>
<th>HD Mechanical Specs: Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Diameter (D Ø)</td>
</tr>
<tr>
<td>Lead Spacing (A)</td>
</tr>
<tr>
<td>Lead Wire (d Ø)</td>
</tr>
</tbody>
</table>