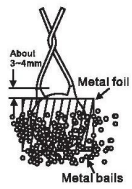
Specifications Test Methods

❖Test conditions

Unless otherwise specified herein, or in the individual specification, all measurements and tests shall be made at ambient or "room" conditions as defined below under general requirements. Whenever ambient conditions must be closely controlled in order to obtain reproducible results for referee purposes, the stricter conditions listed below shall be specified.

CONDITION	GENERAL REQUIREMENTS	CONTROL REQUIREMENTS
Temperature	25℃±3℃	25℃±1℃
Barometric Pressure	650 to 800mm of mercury	650 to 800mm of mercury
Relative Humidity	not to exceed 75 percent	50±2 percent

❖Specifications and test methods(Apply to type WD and KL)

<table>
<tr><th>No.</th><th colspan="2">Item</th><th>Specifications</th><th>Testing Method</th></tr>
<tr><td>1</td><td colspan="2">Appearance and Dimensions</td><td>No marked defect on appearance form and dimensions are within specified range.</td><td>The capacitor shall be inspected by naked eyes for visible evidence of defect. Dimensions shall be measured with slide calipers.</td></tr>
<tr><td>2</td><td colspan="2">Marking</td><td>To be easily legible.</td><td>The capacitor shall be inspected by naked eyes.</td></tr>
<tr><td>3</td><td colspan="2">Capacitance (C_R)</td><td>Within specified tolerance.</td><td rowspan="2">The capacitance, dissipation factor and Q should be measured at 25°C with 1±0.1kHz (char. C, L: 1±0.1MHz) and AC5V(r.m.s.) max.</td></tr>
<tr><td>4</td><td colspan="2">Dissipation Factor (tanδ) or Q Value</td><td><table><tr><th>Char.</th><th>Specifications</th></tr><tr><td>C, L</td><td>Q≥400+20C_R (C_R<30pF)
Q≥1000 (C_R≥30pF)</td></tr><tr><td>X, B, E</td><td>tanδ≤0.025</td></tr><tr><td>F</td><td>tanδ≤0.050</td></tr></table></td></tr>
<tr><td>5</td><td colspan="2">Insulation Resistance (I. R.)</td><td>10000MΩ min.</td><td>The insulation resistance should be measured with DC500±50V within 60±5 sec. of charging.
The voltage should be applied to the capacitor through a resistor of 1MΩ.</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Dielectric Strength</td><td>Between Lead Wires</td><td>No failure.</td><td>The capacitor should not be damaged when test voltages of Table 1 are applied between the lead wires for 60 sec.
<Table 1><table><tr><th>Type</th><th>KL(X1Y2)</th><th>WD(X1Y1)</th></tr><tr><td>Test Voltage</td><td>AC2600V(r.m.s.)</td><td>AC4000V(r. m. s.)</td></tr></table>The test voltage is according to my company's product approve sheet when the non-standard lead spacing comes out.</td></tr>
<tr><td>Body Insulation</td><td>No failure.</td><td>First, the terminals of the capacitor should be connected together. Then, as shown in figure at right, a metal foil should be closely wrapped around the body of the capacitor to the distance of about 3 to 4mm from each terminal.
Then, the capacitor should be inserted into a container filled with metal balls of about 1mm diameter. Finally, AC voltage of Table 2 is applied for 60 sec. between the capacitor lead wires and metal balls.
 
<Table 2><table><tr><th>Type</th><th>KL(X1Y2)</th><th>WD(X1Y1)</th></tr><tr><td>Test Voltage</td><td>AC2500V(r. m. s.)</td><td>AC4000V(r. m. s.)</td></tr></table></td></tr>
<tr><td>7</td><td colspan="2">Temperature Characteristics</td><td><table><tr><th>Char.</th><th>Capacitance Change</th></tr><tr><td>B</td><td>Within ±10%</td></tr><tr><td>X</td><td>Within ±15%</td></tr><tr><td>E</td><td>Within +20/-50%</td></tr><tr><td>F</td><td>Within +30/-80%</td></tr></table>(Temp. range: -25 to +85 deg.)<table><tr><th>Char.</th><th>Temperature Coefficient</th></tr><tr><td>C</td><td>0±30ppm/deg</td></tr><tr><td>L</td><td>+350 to 1000ppm/deg</td></tr></table>(Temp. range: -20 to +85 deg.)</td><td>The capacitance measurement should be made at each step specified in Table 3.
<Table 3><table><tr><th>Step</th><th>Temperature (deg)</th></tr><tr><td>1</td><td>20±2</td></tr><tr><td>2</td><td>-25±2</td></tr><tr><td>3</td><td>20±2</td></tr><tr><td>4</td><td>85±2</td></tr><tr><td>5</td><td>20±2</td></tr></table></td></tr>
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