SAMWHA Electric's new series for LED market

Korea's No.1 E-cap manufacturer, Samwha Electric has introduced new "LQ" series, specially designed for LED market. With 45 years of experience and excellence in customization, Samwha Electric is constantly developing new products to the market.

LQ series, ideal for LED in general and industrial market has temperature range of -40 to 105℃ with lifetime of up to 10,000 hours. Provided from 6.3 to 120V and capacitance of 27 to 8200μF, it offers wide range of possibility for general products and industrial customers. With further advantages of low impedance and high ripple current, it will offer customers with more options than current series.

● Key Features

<table>
<tr><th>Item</th><th>Characteristics</th></tr>
<tr><td>Operating temperature range</td><td>-40 ~ +105˚C</td></tr>
<tr><td>Leakage current max.</td><td>I = 0.01CV or 3㎂ whichever is greater (after 2 minutes)</td></tr>
<tr><td>Capacitance tolerance</td><td>±20% at 120Hz, 20˚C</td></tr>
<tr><td>Dissipation factor max.
(at 120Hz, 20˚C)</td><td>Capacitance > 1000㎌ : tanδ increases by 0.02 for each 1000㎌ from below value.
<table>
<tr><td>WV</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td><td>120</td></tr>
<tr><td>tanδ</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td><td>0.08</td><td>0.08</td></tr>
</table></td></tr>
<tr><td>Low temperature characteristics
(Impedance ratio at 120Hz)</td><td>
<table>
<tr><td>Z-25˚C / Z+20˚C</td><td>2</td></tr>
<tr><td>Z-40˚C / Z+20˚C</td><td>3</td></tr>
</table></td></tr>
<tr><td>Load life</td><td>After an application of DC bias voltage plus the rated AC ripple current for 10000 hours at 105˚C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.
<table>
<tr><td>Rated voltage (Vdc)</td><td>6.3 ~ 10</td><td>16 ~ 120</td></tr>
<tr><td>Capacitance change</td><td>Within ±30% of initial value</td><td>Within ±25% of initial value</td></tr>
<tr><td>tanδ</td><td colspan="2">Less than 200% of specified value</td></tr>
<tr><td>Leakage current</td><td colspan="2">Less than specified value</td></tr>
</table>
<table>
<tr><td rowspan="2">ØD</td><td colspan="3">Life time (hrs)</td></tr>
<tr><td>6.3Vdc</td><td>10 ~ 50Vdc</td><td>63 ~ 120Vdc</td></tr>
<tr><td>Ø5 ~ Ø6.3</td><td>6000</td><td>7000</td><td>6000</td></tr>
<tr><td>Ø8×11.5L</td><td>8000</td><td>9000</td><td>8000</td></tr>
<tr><td>Ø8×15L ~ 20L</td><td>9000</td><td>10000</td><td>9000</td></tr>
<tr><td>Ø10×12.5L</td><td colspan="3">9000</td></tr>
<tr><td>Ø10×16L ~ 25L
Ø12.5 ~</td><td colspan="3">10000</td></tr>
</table></td></tr>
<tr><td>Shelf life (at 105˚C)</td><td>After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20˚C by the KS C IEC 60384 - 4</td></tr>
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