General Purpose Capacitors

multicomp PRO

Features

- For general purpose.
- Wide CV value range.
- Safely vent construction products, RH series are guaranteed 2,000 hours at 105°C.

Specifications

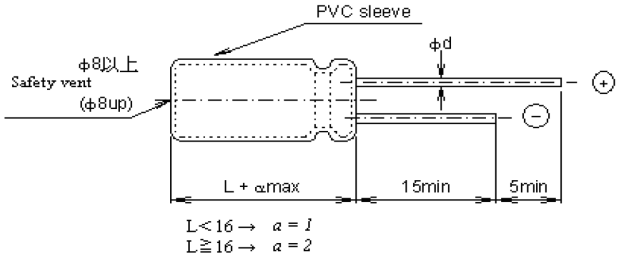
Capacitance	: 120µF
Voltage Rating	: 35V
Capacitance Tolerance	: ± 20%
Capacitor Terminals	: Radial Leaded
Diameter	: 8mm
Lead Spacing	: 3.5mm
Height	: 12mm
Operating Temperature	: -40°C to +105°C
Lifetime @ Temperature	: 1000 hours @ 105°C

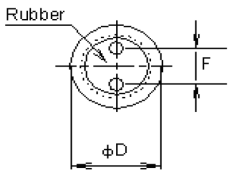
Specification Table

<table>
<tr><th>Item</th><th colspan="15">Performance</th></tr>
<tr><td>Operating Temperature Range</td><td colspan="8">-40°C to+105ºC</td><td colspan="7">-25°C to+105ºC</td></tr>
<tr><td>Rated Working Voltage Range</td><td colspan="8">6.3V DC - 100V DC</td><td colspan="7">160V DC - 450V DC</td></tr>
<tr><td>Nominal Capacitance Range</td><td colspan="8">0.1 - 15,000µF</td><td colspan="7">0.47 - 330µF</td></tr>
<tr><td>Capacitance Tolerance</td><td colspan="15">±20% (at+20ºC ,120Hz)</td></tr>
<tr><td rowspan="2">Leakage Current</td><td colspan="8">I≤0.01CV or 3(µA) max</td><td colspan="7">I≤0.03CV + 20(µA) max</td></tr>
<tr><td colspan="8">Whichever is greater after 3 minutes.</td><td colspan="7">I: Leakage Current (µA)
C: Rated Capacitance (µF)
V: Working Voltage(V)</td></tr>
<tr><td>Dissipation Factor(tanδ)
(120Hz\+20ºC)</td><td colspan="15">
<table>
<tr><td>Working Voltage V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td><td>160</td><td>200</td><td>250</td><td>350</td><td>400</td><td>450</td></tr>
<tr><td>tanδ max.</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.1</td><td>0.1</td><td>0.07</td><td>0.15</td><td>0.15</td><td>0.15</td><td>0.20</td><td>0.24</td><td>0.24</td></tr>
</table>
Add 0.02 per 1000 µF for more than 1000µF.
</td></tr>
<tr><td>Maximum Permissible
Ripple Current</td><td colspan="15">Refer to standard products table(120Hz,+105ºC)
Correction factor for frequency
<table>
<tr><td colspan="2">Freq.(Hz)
W.V.(V.DC)</td><td>60</td><td>120</td><td>1K</td><td>10K</td><td>100K</td></tr>
<tr><td rowspan="3">6.3~50</td><td>0.1-330</td><td>0.85</td><td>1</td><td>1.3</td><td>1.4</td><td>1.55</td></tr>
<tr><td>470-3300</td><td>0.95</td><td>1</td><td>1.15</td><td>1.2</td><td>1.25</td></tr>
<tr><td>≧4700</td><td>0.95</td><td>1</td><td>1.1</td><td>1.2</td><td>1.2</td></tr>
<tr><td rowspan="3">63~100</td><td>0.47-33</td><td>0.75</td><td>1</td><td>1.55</td><td>1.65</td><td>1.8</td></tr>
<tr><td>47-220</td><td>0.75</td><td>1</td><td>1.4</td><td>1.6</td><td>1.65</td></tr>
<tr><td>≧330</td><td>0.8</td><td>1</td><td>1.3</td><td>1.35</td><td>1.4</td></tr>
<tr><td>≧160</td><td>1-220</td><td>0.7</td><td>1</td><td>1.3</td><td>1.7</td><td>1.7</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Item</th><th>Performance</th></tr>
<tr><td>Characteristics at low temperature (stability at 120 Hz)</td><td>
<table>
<tr><td>Working Voltage V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td><td>160</td><td>200</td><td>250</td><td>350</td><td>400</td><td>450</td></tr>
<tr><td>-25ºC/+20ºC</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>3</td><td>3</td><td>3</td><td>6</td><td>6</td><td>15</td></tr>
<tr><td>-40ºC/+20ºC</td><td>8</td><td>6</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
For capacitance value >1000µF, Add 0.5 per another 1000µF for -25ºC /+25ºC.
Add 1.0 per another 1000µF for -40ºC/+20ºC.
</td></tr>
<tr><td>High Temperature Loading</td><td>After 2000hrs. Application of DC rated working voltage at +105ºC,
The capacitor shall meet the following limits:
Post test requirements at +20ºC.
<table>
<tr><td>Leakage current</td><td>≤ the Initial specified value</td></tr>
<tr><td>Capacitance change</td><td>≤±20% of initial measured value</td></tr>
<tr><td>Dissipation Factor(tanδ)</td><td>≤200% of initial specified value</td></tr>
</table>
</td></tr>
<tr><td>Shelf Life</td><td>After storage for 500hrs. at +105ºC with no voltage applied.
Post test requirements at +20ºC
Same limits as high temperature loading.</td></tr>
</table>

Diagram of Dimensions





Dø (+ 0.5Max)	5	6.3	8	10	13	16	18	22
F (±0.5)	2	2.5	3.5	5	5	7.5	7.5	10
dø (±0.02)	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8

Dimensions : Millimetres

Part Number Table

Description	Part Number
Electrolytic Capacitor, 120µF, 35V, ±20%, 8mm	MCRH35V127M8X12