## FEATURES

- High Current – High dvdt – Multiple Lug Styles

## APPLICATIONS

- Power Semiconductor Module Protection - Resonant circuit – Switching power supplies

### Operating Temperature Range

<table>
<thead>
<tr>
<th></th>
<th>-40°C to +100°C</th>
</tr>
</thead>
</table>

### Capacitance Tolerance

- 10% at 1 kHz, 25°C
- 5% optional

### Non-Recurrent SVDC

<table>
<thead>
<tr>
<th>Voltage</th>
<th>250</th>
<th>330</th>
<th>400</th>
<th>600</th>
<th>700</th>
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</thead>
<tbody>
<tr>
<td>WVDC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAC</td>
<td>400</td>
<td>500</td>
<td>600</td>
<td>800</td>
<td>1000</td>
</tr>
</tbody>
</table>

### AC voltage (50/60 Hz)

<table>
<thead>
<tr>
<th>Voltage</th>
<th>250</th>
<th>330</th>
<th>400</th>
<th>600</th>
<th>700</th>
</tr>
</thead>
<tbody>
<tr>
<td>WVDC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAC</td>
<td>160</td>
<td>220</td>
<td>275</td>
<td>350</td>
<td>400</td>
</tr>
</tbody>
</table>

For T>85°C, the voltage (DC/AC) must be decreased by (1.5/2.5)% per °C

### Capacitance Drift Factor

- <0.5% after 2 years at 40°C

### Life Expectancy

- 100000 Hours @ WVDC
- 300000 Hours @ VAC

### Capacitance Change

- ≤3% of initially measured value

### Failure quota

- 300/ Billion component hours

### Damp Heat test

- 56 days at 40°C with 90 to 95% RH, +40°C and no voltage applied
- Capacitance Change ≤2% of initially measured value
- Dissipation Factor ≤0.001 at 1kHz and 25°C
- Insulation Resistance >50% of maximum specified value

### Self Inductance

- <1 nano-Henry per mm of lead spacing

### Capacitance Temperature Coefficient

- -200 ppm/°C, +100 ppm/°C

### Capacitance Drift Factor

- <0.5% after 2 years at 40°C

### Capacitance Temperature Coefficient

- -200 ppm/°C, +100 ppm/°C

### Dielectric Strength

- 160% of rated VDC or 150% VAC applied for 2 Seconds and 25°C
- 3kVAC @ 50/60 Hz applied between terminals and case for 60 seconds at 25°C

### Dielectric

- Polypropylene

### Construction

- Metallized film

### Coating

- Flame Retardant plastic box with epoxy resin (UL94V-0)

### Leads

- Lead free tinned copper leads

---

**Insulation Resistance**

- 3000 MΩxuF (not to exceed 30GΩ)

**Dissipation Factor (MAX)**

<table>
<thead>
<tr>
<th>Frequency (kHz)</th>
<th>C≤5uF</th>
<th>5&lt;C≤25uF</th>
<th>C&gt;25uF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.05%</td>
<td>0.08%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

**Self Inductance**

- <1 nano-Henry per mm of lead spacing

**Capacitance Temperature Coefficient**

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**Dielectric Strength**

- 160% of rated VDC or 150% VAC applied for 2 Seconds and 25°C
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**Dielectric**

- Polypropylene

**Construction**

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**Coating**

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- Lead free tinned copper leads

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North America
Tel: (847) 675-1760
sales@llcap.com

Asia
Tel: 852 2793 0921
sales@llcap.com.hk

Aug-19
Fixing pitch and distance between lugs (mm)

<table>
<thead>
<tr>
<th>Lugs</th>
<th>L</th>
<th>P1</th>
<th>P2</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>S, V, F</td>
<td>42</td>
<td>23</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>25</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>SM8, VM8, FM8</td>
<td>39</td>
<td>40</td>
<td>24</td>
<td>8</td>
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<tr>
<td>T, W, G</td>
<td>57.5</td>
<td>34</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>TM8, WM8, GM8</td>
<td>42</td>
<td>22</td>
<td>8</td>
<td>8</td>
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<tr>
<td>N, P</td>
<td>57.5</td>
<td>23</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>NM8, PM8</td>
<td>57.5</td>
<td>25</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>A</td>
<td>42</td>
<td>51</td>
<td>---</td>
<td>8</td>
</tr>
<tr>
<td>B</td>
<td>42</td>
<td>32</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>E</td>
<td>42</td>
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<td>15</td>
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<td>L</td>
<td>42</td>
<td>22</td>
<td>8</td>
<td>6</td>
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<td></td>
<td>57.5</td>
<td>36</td>
<td>21</td>
<td>8</td>
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</tbody>
</table>
Metallized Polypropylene Film Capacitors
Direct Mount Snubber, Lug Terminals

Style N, NM8

Style P, PM8

Style A

STYLE V, VM8, W, WM8

CDE Illinois Capacitor
3 Cornell Dubilier Brand

North America
Tel: (847) 675-1760
sales@ilcap.com

Asia
Tel: 852 2793 0921
sales@ilcap.com.hk

Aug-19
## Capacitance (µF) vs. Voltage (VWDC) Table

<table>
<thead>
<tr>
<th>Capacitance (µF)</th>
<th>VWDC</th>
<th>IC PART NUMBER</th>
<th>dv/dt (V/µsec)</th>
<th>Maximum RMS Ripple Current (A) 100 kHz, ±70°C</th>
<th>Typical ESR (mΩ) 100 kHz, ±25°C</th>
<th>Dims LxHxT (mm)</th>
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<tbody>
<tr>
<td>1.5</td>
<td>700</td>
<td>155PMC700K#P2</td>
<td>70</td>
<td>14.5</td>
<td>4.8</td>
<td>42.5x27.5x32.5</td>
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<tr>
<td>2</td>
<td>700</td>
<td>205PMC700K#P2</td>
<td>70</td>
<td>16.5</td>
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<tr>
<td>2.5</td>
<td>600</td>
<td>255PMC600K#P2</td>
<td>55</td>
<td>16</td>
<td>4</td>
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<tr>
<td>2.5</td>
<td>700</td>
<td>255PMC700K#P1</td>
<td>70</td>
<td>19.5</td>
<td>3.4</td>
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<td>305PMC600K#P2</td>
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<tr>
<td>3</td>
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<td>305PMC700K#P1</td>
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<td>21.5</td>
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<td>3.3</td>
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<tr>
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<td>700</td>
<td>335PMC700K#</td>
<td>70</td>
<td>22</td>
<td>2.9</td>
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<tr>
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<td>400</td>
<td>405PMC400K#P2</td>
<td>40</td>
<td>16.5</td>
<td>3.4</td>
<td>42.5x27.5x24.5</td>
</tr>
<tr>
<td>4</td>
<td>600</td>
<td>405PMC600K#P1</td>
<td>55</td>
<td>21.5</td>
<td>2.8</td>
<td>42.5x35.5x33.5</td>
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<tr>
<td>4</td>
<td>700</td>
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<td>26</td>
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<td>42.5x45x33</td>
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<td>4.7</td>
<td>600</td>
<td>475PMC600K#</td>
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<td>4.7</td>
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<tr>
<td>5</td>
<td>400</td>
<td>505PMC400K#P2</td>
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<tr>
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<td>600</td>
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<td>6.8</td>
<td>400</td>
<td>685PMC400K#P1</td>
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<td>6.8</td>
<td>600</td>
<td>685PMC600K#P0</td>
<td>55</td>
<td>28.5</td>
<td>2.2</td>
<td>42.5x45x33</td>
</tr>
<tr>
<td>6.8</td>
<td>700</td>
<td>685PMC700K#</td>
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<td>8</td>
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<td>25.5</td>
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<tr>
<td>9</td>
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<td>26.5</td>
<td>2.1</td>
<td>42.5x35.5x33.5</td>
</tr>
</tbody>
</table>

## Additional Specifications

- **dv/dt (V/µsec):**
  - 25
  - 40
  - 55
  - 40
  - 40
  - 30
  - 40
  - 70
  - 70
  - 55
  - 70

- **Maximum RMS Ripple Current (A) 100 kHz, ±70°C:**
  - 20
  - 30
  - 25
  - 25
  - 25
  - 25
  - 25
  - 25
  - 25

- **Typical ESR (mΩ) 100 kHz, ±25°C:**
  - 1.7
  - 1.7
  - 1.8
  - 1.8
  - 2.9
  - 3.5
  - 3.5
  - 3.5
  - 3.5

- **Dims LxHxT (mm):**
  - 42.5x27.5x32.5
  - 42.5x27.5x32.5
  - 42.5x35.5x33.5
  - 42.5x35.5x33.5
  - 42.5x27.5x32.5
  - 42.5x35.5x33.5
  - 42.5x45x33
  - 42.5x35.5x33.5
  - 42.5x45x33
  - 42.5x35.5x33.5

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**PMC Metallized Polypropylene, Power Semiconductor Direct Mount Snubber Lug terminals**