Electronic Concepts’ new polymer operates to **150°C** with the highest peak-current rating of any metallized dry film capacitor.

**FEATURES**
- Continuous operation at 150°C
- Highest peak current capabilities of any metallized film capacitor technology
- Low loss factors that decrease with temperature
- Tight capacitance stability versus temperature between -55°C and +150°C
- Volume efficiency comparable to 85°C polypropylene snubber capacitors like ECI series MP88
- RoHS compliant

**STANDARD CONFIGURATION**
- Horizontal Mounting (A)
- Vertical Mounting (B)
Specification Summary

Capacitance Range
0.12µF - 2.2µF

Capacitance Tolerance
Standard capacitance tolerance is ± 10%.
(Other tolerances available on request)

Operating Temperature Range
-55°C to +150°C

Enclosure/Construction
Metallized proprietary dielectric in a thermoplastic case with RoHS tab terminals

Voltage Rating
600 VDC to 2400 VDC

Environmental Testing

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vibration (Note 1)</td>
<td>204</td>
<td>D</td>
</tr>
<tr>
<td>Shock</td>
<td>213</td>
<td>I</td>
</tr>
<tr>
<td>Humidity (Note 2)</td>
<td>106</td>
<td>-</td>
</tr>
<tr>
<td>Life (Note 3)</td>
<td>108</td>
<td>F</td>
</tr>
</tbody>
</table>

Reference MIL-STD-202

Notes:
1. Vibration is continuous for a four hour period in each of two directions, parallel and perpendicular to the major axis.
2. The capacitors shall be subjected to 20 continuous cycles.
3. Capacitors can withstand a test potential of 1.3 times DC Rated voltage at 150°C between terminals for a period of 2,000 hours, with not more than one failure per group of 10 tested.

Characteristics

Insulation Resistance vs. Temperature

Capacitance Change vs. Temperature

Maximum RMS Current

Dissipation Factor vs. Temperature

Specifications:
- Capacitance Range: 0.12µF - 2.2µF
- Capacitance Tolerance: ± 10%
- Operating Temperature Range: -55°C to +150°C
- Enclosure/Construction: Metallized proprietary dielectric in a thermoplastic case with RoHS tab terminals
- Voltage Rating: 600 VDC to 2400 VDC

Notes:
1. Vibration is continuous for a four hour period in each of two directions, parallel and perpendicular to the major axis.
2. The capacitors shall be subjected to 20 continuous cycles.
3. Capacitors can withstand a test potential of 1.3 times DC Rated voltage at 150°C between terminals for a period of 2,000 hours, with not more than one failure per group of 10 tested.
**Detail Data**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>VALUE (µF)</th>
<th>VOLTAGE (VDC)</th>
<th>Ipk (Amps)</th>
<th>dv/dt (V/µs)</th>
<th>ESL (nH)</th>
<th>Freq (kHz)</th>
<th>ESR (100 kHz)</th>
<th>Imms (100 kHz)</th>
<th>70°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT1_BC225</td>
<td>2.2</td>
<td>600</td>
<td>6688</td>
<td>&lt;25</td>
<td>678</td>
<td>60</td>
<td>5.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HT1 BF155</td>
<td>1.5</td>
<td>750</td>
<td>5700</td>
<td>&lt;25</td>
<td>822</td>
<td>70</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HT1 BJ105</td>
<td>1.0</td>
<td>900</td>
<td>4560</td>
<td>&lt;25</td>
<td>1010</td>
<td>95</td>
<td>4.1</td>
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<td></td>
</tr>
<tr>
<td>HT1 BN564</td>
<td>0.56</td>
<td>1200</td>
<td>3405</td>
<td>&lt;25</td>
<td>1350</td>
<td>145</td>
<td>3.3</td>
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<tr>
<td>HT1 BS334</td>
<td>0.33</td>
<td>1500</td>
<td>2508</td>
<td>&lt;25</td>
<td>1750</td>
<td>220</td>
<td>2.6</td>
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<tr>
<td>HT1 BX224</td>
<td>0.22</td>
<td>1800</td>
<td>2006</td>
<td>&lt;25</td>
<td>2150</td>
<td>300</td>
<td>2.2</td>
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<td></td>
</tr>
<tr>
<td>HT1 CB124</td>
<td>0.12</td>
<td>2400</td>
<td>1459</td>
<td>&lt;25</td>
<td>2910</td>
<td>480</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Style**

**TERMINAL STYLE "A"**

**TERMINAL STYLE "B"**
**Additional Information**

HT1 snubber series offers high-temperature performance as an alternative to conventional capacitors in applications including high-temperature switching to 150°C, EV/HEV inverters, and industrial power conversion. The HT1 series responds to industry demands for high-temperature capacitors with outstanding peak-current performance surpassing traditional metallized dielectrics.

**How to Order**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>HT1 - 150°C Polymer</th>
</tr>
</thead>
<tbody>
<tr>
<td>STYLE</td>
<td>A - Horizontal Mount, B - Vertical Mount</td>
</tr>
<tr>
<td>VOLTAGE</td>
<td>DC Voltage Rating: BC=600VDC, BF=750VDC, BJ=900VDC, BN=1200VDC, BS=1500VDC, BX=1800VDC, CB=2400VDC</td>
</tr>
<tr>
<td>CAPACITANCE IN PICOFARADS</td>
<td>The first two digits are significant figures, the third digit represents the number of zeros to follow to express the capacitance in picofarads.</td>
</tr>
</tbody>
</table>

**Marking And Date Code**

All capacitors are marked with company initials "EC", corporate logo or EC trademark—in addition to type HT1, capacitance, tolerance, rated DC working voltage and date code. The first two digits of the date code represent the year, the second two digits the week, i.e., 1252 is the 52nd week of 2012, 1202 is the second week of 2012.

**Quality Assurance**

Major emphasis is placed on quality assurance. EC is an ISO 9001 and AS9100 Certified Company. Raw material inspection and the use of SPC manufacturing procedures assure the highest quality standards. Procedures are fully described in the EC Quality Control Manual.

Electronic Concepts will continue to advance the state-of-the-art by utilizing leading edge technology, compact capacitor designs and establishing reliability procedures.

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