## Wideband RF Choke WA8514-AE

- Developed for Mini-Circuits PHA-202+ Monolithic Amplifier
- Optimized for use between 30–3000 MHz
- 5.6 µH nominal inductance
- DCR less than 0.45 Ohms

- SRF greater than 200 MHz
- Capable of handling over 500 mA
- Very low profile – only 1 mm tall

### Part number

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance</th>
<th>DCR (Ohms)</th>
<th>SRF (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA8514-AE_</td>
<td>±20% µH</td>
<td>typ max</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.6</td>
<td>0.40 0.46</td>
<td>250</td>
<td>0.73</td>
<td>0.60 0.80</td>
</tr>
</tbody>
</table>

1. When ordering, please specify **packaging** code:

- **WA8514-AEC**
  - Packaging: C = 7” machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel).
  - B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter C instead.

2. Inductance measured at 100 kHz, 0.1 V using an Agilent/HP 4284A impedance analyzer.

3. DC current at which the inductance drops 30% (typ) from its value without current.

4. Current that causes the specified temperature rise from 25°C ambient.

5. This information is for reference only and does not represent absolute maximum ratings.

### Core material

- Composite

### Environmental

- RoHS compliant, halogen free

### Terminations

- Silver-palladium-platinum-glass frit.

### Weight

- 17.7 mg

### Ambient temperature

- -40°C to +125°C with (20°C rise) Irms current

### Maximum part temperature

- +145°C (ambient + temp rise)

### Storage temperature

- Component: -40°C to +145°C.

### Resistance to soldering heat

- Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

### Temperature Coefficient of Inductance (TCL)

- +25 to +125 ppm/°C

### Moisture Sensitivity Level (MSL)

- 1 (unlimited floor life at <30°C / 85% relative humidity)

### Failures in Time (FIT) / Mean Time Between Failures (MTBF)

- One per billion hours / one billion hours, calculated per Telcordia SR-332

### PCB washing

- Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf

### Recommended Land Pattern

<table>
<thead>
<tr>
<th>A max</th>
<th>B max</th>
<th>C max</th>
<th>D max</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.171</td>
<td>0.078</td>
<td>0.04</td>
<td>0.065</td>
<td>0.013</td>
<td>0.134</td>
<td>0.095</td>
<td>0.124</td>
<td>0.033</td>
</tr>
<tr>
<td>4.34</td>
<td>1.98</td>
<td>1.02</td>
<td>1.65</td>
<td>0.33</td>
<td>3.40</td>
<td>2.413</td>
<td>3.15</td>
<td>0.838</td>
</tr>
</tbody>
</table>

### L vs Current

- Inductance (µH) vs Current (A)

### Z vs Frequency

- Impedance (kOhms) vs Frequency (MHz)

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