197 Series High Frequency Reactors

197AC25

Features:
- High permeability core ideal for applications <50Khz
- High self-resonant frequency values
- Universal channel frame package for maximum versatility
- Insulated flexible leads 6” minimum
- Weight: 14 oz.

**ELECTRICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Typical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inductance with bias</td>
<td>75uH ±15% @ 25ADC</td>
</tr>
<tr>
<td>Operating Frequency</td>
<td>60Hz – 10KHz</td>
</tr>
<tr>
<td>Self-Resonant Frequency</td>
<td>272.30 KHz</td>
</tr>
<tr>
<td>Impedance @ SRF</td>
<td>12.27K Ohms</td>
</tr>
<tr>
<td>Ripple Current</td>
<td>20% peak-to-peak</td>
</tr>
<tr>
<td>DCR</td>
<td>18mΩ ±15% @20°C</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>2000 VRMS</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-40 To 105°C</td>
</tr>
<tr>
<td>Core material</td>
<td>Carbonyl Iron Powder</td>
</tr>
</tbody>
</table>

**DIMENSIONAL DETAILS:**

- All leads minimum 6" long out.

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PERFORMANCE GRAPHS:

**Inductance Vs DC Bias Current**

- Voltech DC1000A Precision DC Bias Current Source
- Wayne Kerr 3255B with a 3265B Inductance Analyzer
- Agilent E4980A Precision LCR Meter
- HP 4192A LF Impedance Analyzer
- Keithley 2010 DVM

1. Performance graphs at 2.0 volt AC drive.
2. Power loss computation from core manufacturer’s data.
3. The results are typical and are subject to normal manufacturing and electrical tolerances.
4. Dimensional tolerance ±0.063” unless otherwise specified.

**Quality Factor**

- Frequency (Hz)
- Q Factor

**Impedance Vs DC Bias Current**

- Copper Loss: 21.5W
- 10KHz, 1KHz, 60Hz

**Power Loss @ 10KHz 25ADC**

- Total Watts: 21.5W
- Core Loss

MEASUREMENT INSTRUMENTS:
- Voltech DC1000A Precision DC Bias Current Source
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