197 Series High Frequency Reactors

197AA20

Features:
- High permeability core ideal for applications <50Khz
- High self-resonant frequency values
- Rugged construction with aluminum base and stainless steel band
- Open-style terminal for maximum versatility
- Weight: 2.5 lbs.

ELECTRICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Typical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inductance with bias</td>
<td>0.250mH ±15% @ 20ADC</td>
</tr>
<tr>
<td>Operating Frequency</td>
<td>60Hz – 10KHz</td>
</tr>
<tr>
<td>Self-Resonant Frequency</td>
<td>1185.3 KHz</td>
</tr>
<tr>
<td>Impedance @ SRF</td>
<td>6.28K Ohms</td>
</tr>
<tr>
<td>Ripple Current</td>
<td>20% peak-to-peak</td>
</tr>
<tr>
<td>DCR</td>
<td>14mΩ ±15% @20°C</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>2500V RMS</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:

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**PERFORMANCE GRAPHS:**

**Inductance Vs DC Bias Current**

- 60Hz
- 1KHz
- 10KHz

- **Quality Factor**

- **Impedance Vs DC Bias Current**

- **Power Loss @ 10KHz 20ADC**

- **MEASUREMENT INSTRUMENTS**
  - Voltech DC1000A Precision DC Bias Current Source
  - Wayne Kerr 3295B with a 3265B Inductance Analyzer
  - Agilent E4980A Precision LCR Meter
  - HP 4192A LF Impedance Analyzer
  - Keithley 2010 DVM

- **TEST & DIMENSIONAL CONDITIONS**
  1. Performance graphs @1.0 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.