## Micro i° Chip Inductors

### Military Specifications

- MIL-PRF-83446/04

### Physical Parameters

<table>
<thead>
<tr>
<th>Series</th>
<th>Inductance (μH)</th>
<th>Tolerance</th>
<th>Test Frequency (MHz)</th>
<th>SRF Minimum (MHz)</th>
<th>DC Resonance Minimum (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>103R</td>
<td>0.015 ± 20% / ± 10%</td>
<td>60</td>
<td>50.0</td>
<td>2700</td>
<td>0.060</td>
</tr>
<tr>
<td>70K</td>
<td>0.016 ± 20% / ± 10%</td>
<td>57</td>
<td>50.0</td>
<td>2450</td>
<td>0.026</td>
</tr>
<tr>
<td>47K</td>
<td>0.017 ± 20% / ± 10%</td>
<td>55</td>
<td>50.0</td>
<td>2200</td>
<td>0.078</td>
</tr>
<tr>
<td>33K</td>
<td>0.018 ± 20% / ± 10%</td>
<td>52</td>
<td>50.0</td>
<td>2000</td>
<td>0.093</td>
</tr>
<tr>
<td>22K</td>
<td>0.019 ± 20% / ± 10%</td>
<td>50</td>
<td>50.0</td>
<td>1800</td>
<td>0.108</td>
</tr>
<tr>
<td>18K</td>
<td>0.020 ± 20% / ± 10%</td>
<td>49</td>
<td>50.0</td>
<td>1625</td>
<td>0.114</td>
</tr>
<tr>
<td>15K</td>
<td>0.021 ± 20% / ± 10%</td>
<td>48</td>
<td>50.0</td>
<td>1450</td>
<td>0.120</td>
</tr>
<tr>
<td>12K</td>
<td>0.023 ± 20% / ± 10%</td>
<td>45</td>
<td>50.0</td>
<td>1355</td>
<td>0.133</td>
</tr>
<tr>
<td>10K</td>
<td>0.024 ± 20% / ± 10%</td>
<td>42</td>
<td>50.0</td>
<td>1220</td>
<td>0.145</td>
</tr>
</tbody>
</table>

### Maximum Power Dissipation at 90°C

- E: 0.015 Max. (Typ.) / 0.38 Min. (Typ.)
- F: 0.020 Max. (Typ.) / 0.51 Max. (Typ.)

### Weight Max. (Grams) 0.03

### Current Rating at 90°C Ambient

- 35°C Rise

### Operating Temperature Range

- –55°C to +125°C

### Maximum Power Dissipation at 90°C 0.135 Watts

**Note**

Self Resonant Frequency (SRF) Values above 250 MHz are calculated and for reference only.

### Termination Finish Options (Part # Code)

- Gold over Nickel (Standard): As shown.
- Tin/Lead over Nickel: Add suffix “S” to part # (e.g., 103-102KS).
- Mil type “A”: Gold over Nickel (Standard)
- Mil type “B” or “F”: Tin/Lead (solder) over Nickel.
- RoHS type: Order 103R - XXXKS

### Mechanical Configuration

Units are epoxy encapsulated.

Contact areas for reflow soldering are gold plated per MIL-G-45204 Type 1-Grade A. Internal connections are thermal compression bonded.

### Packaging

- Tape & reel (8mm): 7’’ reel, 2000 pieces max.;
- 13’’ reel, 8000 pieces max.

**Made In the U.S.A.**