**SMT Power Inductors – SD43 Series**

- Rugged, cost-effective power inductors
- Excellent current handling; low DCR
- Values greater than 27 µH are 10% tolerance

**Core material** Ferrite  
**Terminations** RoHS compliant tin-silver-copper solder over tin over nickel over silver plating.

**Weight** 0.17 – 0.20 g  
**Ambient temperature** −40°C to +85°C with (40°C rise) Irms current.

**Maximum part temperature** +125°C (ambient + temp rise).  
**Storage temperature** Component: −40°C to +125°C. Tape and reel packaging: −40°C to +80°C

**Resistance to soldering heat** Max three 40 second refows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)** 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 500/7” reel; 2000/13” reel; Plastic tape: 12 mm wide, 0.35 mm thick, 8 mm pocket spacing, 3.4 mm pocket depth

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

### Specification Table

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance (µH)</th>
<th>DCR max (mOhm)</th>
<th>SRF typ (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10% drop</td>
<td>20% drop</td>
<td>30% drop</td>
<td>20°C rise</td>
<td>40°C rise</td>
</tr>
<tr>
<td>SD43-102ML</td>
<td>1.0 ±20%</td>
<td>33</td>
<td>100</td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td>SD43-142ML</td>
<td>1.4 ±20%</td>
<td>38</td>
<td>90</td>
<td>4.8</td>
<td>5.5</td>
</tr>
<tr>
<td>SD43-182ML</td>
<td>1.8 ±20%</td>
<td>42</td>
<td>60</td>
<td>4.1</td>
<td>5.1</td>
</tr>
<tr>
<td>SD43-222ML</td>
<td>2.2 ±20%</td>
<td>47</td>
<td>65</td>
<td>3.6</td>
<td>4.4</td>
</tr>
<tr>
<td>SD43-272ML</td>
<td>2.7 ±20%</td>
<td>52</td>
<td>60</td>
<td>3.4</td>
<td>4.1</td>
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<tr>
<td>SD43-332ML</td>
<td>3.3 ±20%</td>
<td>58</td>
<td>50</td>
<td>2.9</td>
<td>3.3</td>
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<tr>
<td>SD43-392ML</td>
<td>3.9 ±20%</td>
<td>76</td>
<td>47</td>
<td>2.6</td>
<td>3.0</td>
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<tr>
<td>SD43-472ML</td>
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<td>94</td>
<td>45</td>
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<tr>
<td>SD43-562ML</td>
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<td>101</td>
<td>40</td>
<td>2.2</td>
<td>2.5</td>
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<tr>
<td>SD43-682ML</td>
<td>6.8 ±20%</td>
<td>110</td>
<td>35</td>
<td>2.0</td>
<td>2.3</td>
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<tr>
<td>SD43-822ML</td>
<td>8.2 ±20%</td>
<td>132</td>
<td>30</td>
<td>1.83</td>
<td>2.1</td>
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<tr>
<td>SD43-103ML</td>
<td>10.0 ±20%</td>
<td>182</td>
<td>28</td>
<td>1.70</td>
<td>1.95</td>
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<tr>
<td>SD43-123ML</td>
<td>12.0 ±20%</td>
<td>210</td>
<td>24</td>
<td>1.53</td>
<td>1.75</td>
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<tr>
<td>SD43-153ML</td>
<td>15.0 ±20%</td>
<td>235</td>
<td>22</td>
<td>1.33</td>
<td>1.58</td>
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<tr>
<td>SD43-183ML</td>
<td>18.0 ±20%</td>
<td>338</td>
<td>19</td>
<td>1.25</td>
<td>1.43</td>
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<tr>
<td>SD43-223ML</td>
<td>22.0 ±20%</td>
<td>378</td>
<td>17</td>
<td>1.15</td>
<td>1.32</td>
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<tr>
<td>SD43-273ML</td>
<td>27.0 ±20%</td>
<td>522</td>
<td>16</td>
<td>1.00</td>
<td>1.14</td>
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<tr>
<td>SD43-333KL</td>
<td>33.0 ±10%</td>
<td>540</td>
<td>14</td>
<td>0.90</td>
<td>1.05</td>
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<tr>
<td>SD43-393KL</td>
<td>39.0 ±10%</td>
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<td>13</td>
<td>0.84</td>
<td>0.97</td>
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<tr>
<td>SD43-473KL</td>
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<td>844</td>
<td>12</td>
<td>0.77</td>
<td>0.87</td>
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<tr>
<td>SD43-563KL</td>
<td>56.0 ±10%</td>
<td>937</td>
<td>11</td>
<td>0.72</td>
<td>0.80</td>
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<tr>
<td>SD43-683KL</td>
<td>68.0 ±10%</td>
<td>1117</td>
<td>10</td>
<td>0.65</td>
<td>0.72</td>
</tr>
</tbody>
</table>

1. When ordering, please specify **packaging** code:  
   - **SD43-683KL C**
   - **SD43-393KL B**
   - **SD43-473KL D**

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer.
3. SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD -D test fixture.
4. DC current at which the inductance drops the specified amount from its value without current.
5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. Click for temperature derating information.

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SMT Power Inductors – SD43 Series

Typical L vs Current

Typical L vs Frequency

Recommended Land Pattern

Dimensions are in inches

RoHS/REACH Compliant

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