1812DPS Coupled Inductors

- Coupled inductor optimized for xDSL filtering applications
- Can be used as a common mode choke, 1:1 transformer or in SEPIC applications

Core material Ferrite
Terminations RoHS compliant gold over nickel over moly-manganese.
Weight 0.30 – 0.36 g
Ambient temperature -40°C to +85°C with 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) 10.06 per billion hours / 9.940E+07 hours, calculated per Telcordia SR-332
Packaging 600/7” reel; 2200/13” reel Plastic tape: 12 mm wide, 0.25 mm thick, 8 mm pocket spacing, 3.9 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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<table>
<thead>
<tr>
<th>Part number</th>
<th>L ±20% (µH)</th>
<th>Q min</th>
<th>DCR max (Ohms)</th>
<th>SRF min (MHz)</th>
<th>Isatº (mA)</th>
<th>Irmsº (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1812DPS-102ML</td>
<td>1.0</td>
<td>38</td>
<td>0.20</td>
<td>285</td>
<td>2400</td>
<td>2100</td>
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<tr>
<td>1812DPS-222ML</td>
<td>2.2</td>
<td>29</td>
<td>0.33</td>
<td>175</td>
<td>1500</td>
<td>1200</td>
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<tr>
<td>1812DPS-472ML</td>
<td>4.7</td>
<td>43</td>
<td>0.41</td>
<td>102</td>
<td>1500</td>
<td>1000</td>
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<tr>
<td>1812DPS-103ML</td>
<td>10</td>
<td>35</td>
<td>0.74</td>
<td>74</td>
<td>800</td>
<td>780</td>
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<tr>
<td>1812DPS-153ML</td>
<td>15</td>
<td>37</td>
<td>0.96</td>
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<td>710</td>
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<tr>
<td>1812DPS-223ML</td>
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<td>1.84</td>
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<td>530</td>
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<tr>
<td>1812DPS-393ML</td>
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<tr>
<td>1812DPS-473ML</td>
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<td>40</td>
<td>2.66</td>
<td>4.8</td>
<td>400</td>
<td>390</td>
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</tbody>
</table>

1. When ordering, please specify **packaging** code:
2. Per winding. Tested at 100 kHz, 0.1 Vrms, 0 Adc.
3. Q measured at 1 MHz.
4. DC current at which the inductance drops 10% (typ) from its value without current.
5. Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
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Typical L vs Frequency

Typical Q vs Frequency