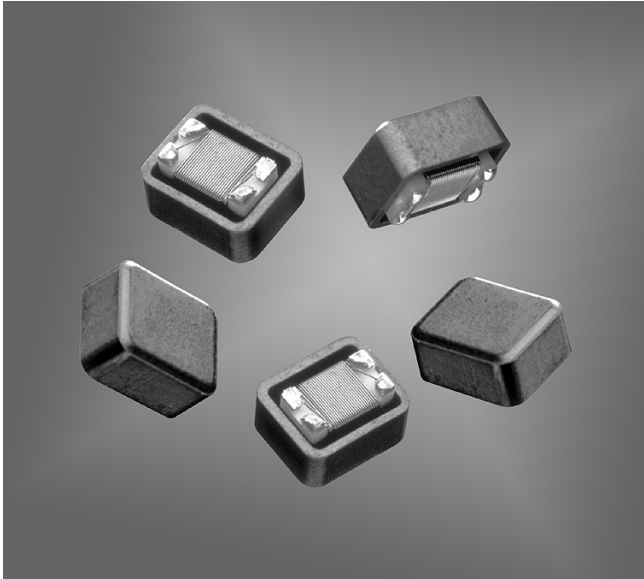




1812DPS Coupled Inductors



- 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 reflows at +260°C, parts cooled to room temperature between cycles

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

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](#).

| Part number ¹ | L ±20% ² (µH) | Q min ³ | DCR max (Ohms) | SRF min (MHz) | Isat ⁴ (mA) | Irms ⁵ (mA) |
|--------------------------|--------------------------------|-----------------------|----------------------|---------------------|---------------------------|---------------------------|
| 1812DPS-102ML_ | 1.0 | 38 | 0.20 | 285 | 2400 | 2100 |
| 1812DPS-222ML_ | 2.2 | 29 | 0.33 | 175 | 1500 | 1200 |
| 1812DPS-472ML_ | 4.7 | 43 | 0.41 | 102 | 1500 | 1000 |
| 1812DPS-103ML_ | 10 | 35 | 0.74 | 74 | 800 | 780 |
| 1812DPS-153ML_ | 15 | 37 | 0.96 | 65 | 700 | 710 |
| 1812DPS-223ML_ | 22 | 38 | 1.84 | 54 | 500 | 530 |
| 1812DPS-393ML_ | 39 | 39 | 2.60 | 5.7 | 450 | 420 |
| 1812DPS-473ML_ | 47 | 40 | 2.66 | 4.8 | 400 | 390 |

1. When ordering, please specify **packaging** code:

1812DPS-473MLC

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

D = 13" machine-ready reel. EIA-481 embossed plastic tape (2200 parts per full reel).

2. Per winding. Tested at 100 kHz, 0.1 Vrms, 0 Adc.

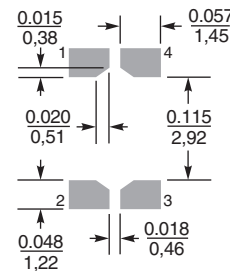
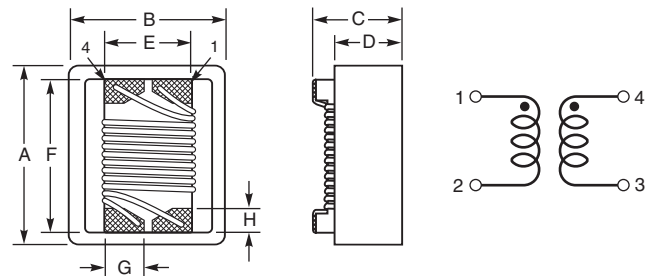
3. Q measured at 1 MHz.

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.

6. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



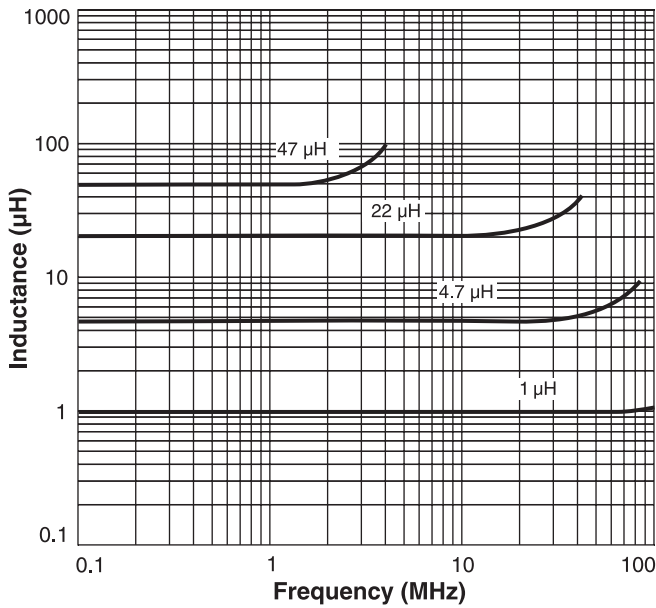
Recommended Land Pattern

| A | B | C | D | E | F | G | H |
|-------|-------|-------|-------|-------|-------|------|-------------|
| max | max | max | ref | ref | ref | min | |
| 0.231 | 0.196 | 0.150 | 0.107 | 0.100 | 0.178 | 0.04 | 0.03 inches |
| 5,87 | 4,98 | 3,81 | 2,72 | 2,54 | 4,52 | 1,02 | 0,76 mm |



1812DPS Coupled Inductors

Typical L vs Frequency



Typical Q vs Frequency

