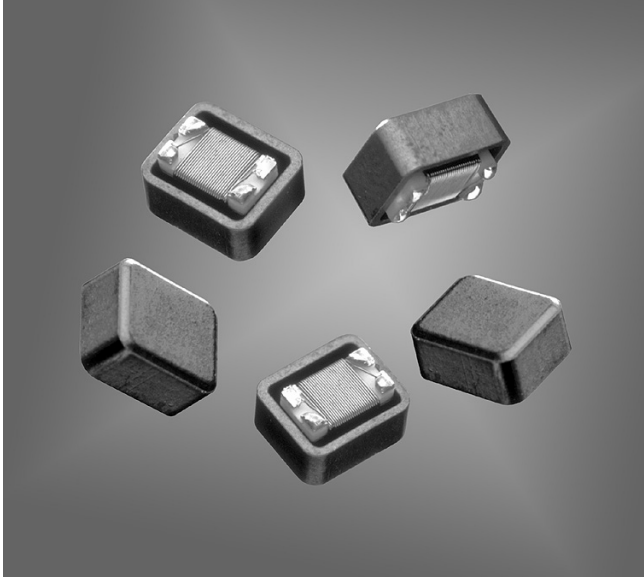




1812DPS Coupled Inductors



- 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, +85°C to +125°C with derated current

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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 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 with pure water or alcohol only. For other solvents, 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).

B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

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.

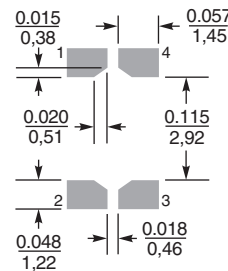
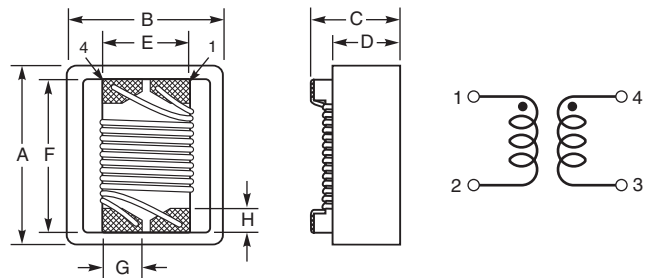
3. Q measured at 1 MHz.

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.

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
5,87	4,98	3,81	2,72	2,54	4,52	1,02	0,76
							mm

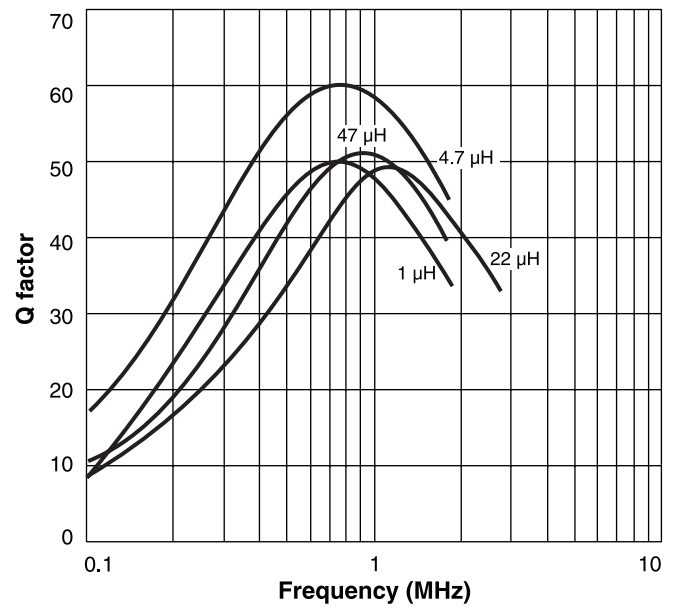


1812DPS Coupled Inductors

Typical L vs Frequency



Typical Q vs Frequency



Irms Derating

