

ULTRA LOW PROFILE POWER INDUCTOR

P7610 Family

Features

- * Current handling (Saturation to 2.8A)
- * Ultra Low profile (1.2mm max)
- * Surface Mount
- * Robust construction
- * Flat top for pick & place
- * Pb-free

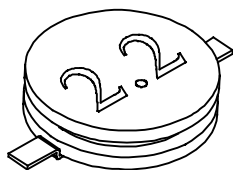
Applications

- * PC Cards
- * Electroluminescent displays
- * LCD drivers
- * Hybrids
- * Daughter boards
- * Portable equipment

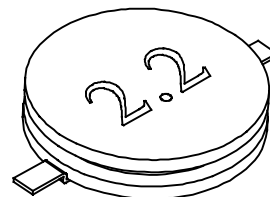
DESCRIPTION

The P7610 family comprises very low profile inductors for height constrained applications. Two sizes are available with the same height and similar current handling, the larger 5412 size having lower DCR.

The family covers inductance over a range from 1 μ H to 220 μ H. The parts are mechanically robust and are supplied with Pb-free terminations suitable for Pb-free and conventional placement and reflow.



P7610-4312



P7610-5412

SPECIFICATIONS

Electrical

4312 size

Part Number	Inductance (μH) ^{(1) (6)}	DCR (Ω) Max	Rated Current ⁽²⁾ I_{rms} (A)	I_{sat} (A) ⁽³⁾
P7610-4312-1R0M	1.0 \pm 20%	0.07	1.9	2.8
P7610-4312-1R5M	1.5 \pm 20%	0.08	1.8	2.3
P7610-4312-2R2M	2.2 \pm 20%	0.11	1.6	2.0
P7610-4312-3R3M	3.3 \pm 20%	0.16	1.3	1.5
P7610-4312-4R7M	4.7 \pm 20%	0.24	1.0	1.3
P7610-4312-6R8M	6.8 \pm 20%	0.32	0.90	1.0
P7610-4312-100M	10 \pm 20%	0.51	0.70	0.80
P7610-4312-150M	15 \pm 20%	0.63	0.60	0.70
P7610-4312-220M	22 \pm 20%	1.0	0.50	0.55
P7610-4312-330M	33 \pm 20%	1.5	0.40	0.45
P7610-4312-470M	47 \pm 20%	2.0	0.35	0.35
P7610-4312-680M	68 \pm 20%	3.0	0.30	0.30
P7610-4312-101M	100 \pm 20%	3.9	0.25	0.25

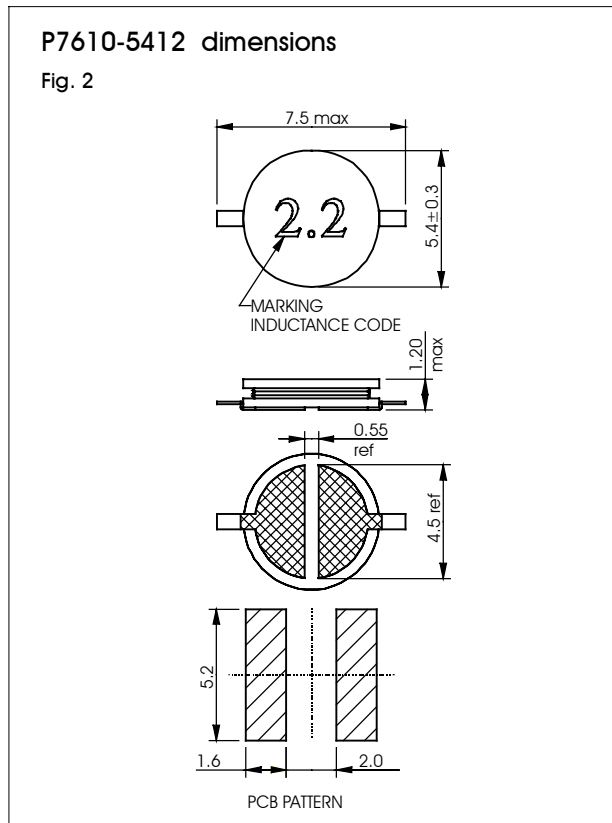
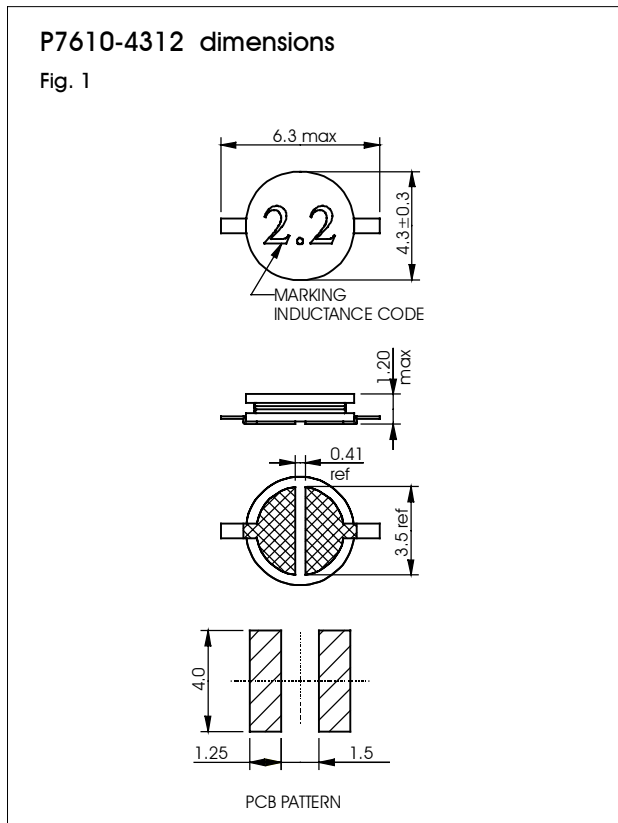
5412 size

Part Number	Inductance (μH) ^{(1) (6)}	DCR (Ω) Max	Rated Current ⁽²⁾ I_{rms} (A)	I_{sat} (A) ⁽³⁾
P7610-5412-2R2M	2.2 \pm 20%	0.08	2.1	1.7
P7610-5412-3R3M	3.3 \pm 20%	0.11	1.7	1.2
P7610-5412-4R7M	4.7 \pm 20%	0.14	1.5	1.1
P7610-5412-6R8M	6.8 \pm 20%	0.20	1.3	0.90
P7610-5412-100M	10 \pm 20%	0.25	1.1	0.75
P7610-5412-150M	15 \pm 20%	0.5	0.85	0.55
P7610-5412-220M	22 \pm 20%	0.6	0.75	0.45
P7610-5412-330M	33 \pm 20%	0.9	0.60	0.40
P7610-5412-470M	47 \pm 20%	1.3	0.50	0.35
P7610-5412-680M	68 \pm 20%	1.7	0.45	0.25
P7610-5412-101M	100 \pm 20%	2.6	0.35	0.20
P7610-5412-151M	150 \pm 20%	4.1	0.30	0.18
P7610-5412-221M	220 \pm 20%	5.4	0.25	0.15

Notes

1. Inductance measured at 100kHz, 100mV.
2. Rated current is the current at which the temperature rise is 40°C max.
3. Saturation Current, I_{sat} , is the DC current at which the zero current inductance drops by 20% max.
4. Operating temperature -20°C to +85°C.
5. For non-standard inductance values, please contact Profec.
6. Component marking: values are marked as in second column (ignoring tolerance) e.g. 1 μH , 10 μH and 100 μH are marked 1.0, 10 and 100 respectively.

CONSTRUCTION

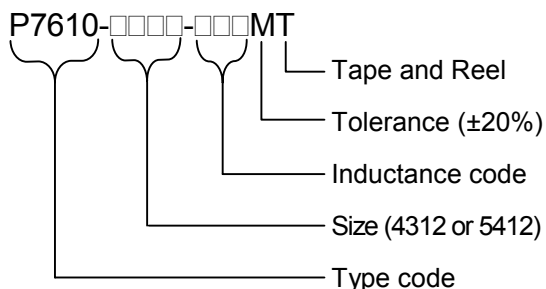


Terminal plating is pure tin (Sn).

Dimensions shown are in millimetres.

Recommended reflow solder profile: 2 minutes (min) @ 100-150°C, 10 seconds (max) @ 230°C; time above 200°C 30 seconds maximum.

ORDERING CODE



ABSOLUTE MAXIMUM RATINGS

Storage temperature	-40°C to +105°C
Operating temperature	-20°C to +85°C
Soldering temperature profile peak	260°C 10s

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