

ULTRA LOW PROFILE POWER INDUCTOR

P7610 Family

Features

- * Lead-free (Pb-free)
- * RoHS compliant
- * Current handling (Saturation >2A)
- * Ultra Low profile (1.0mm max)
- * Surface Mount
- * Flat top for pick & place
- * Ceramic base

Applications

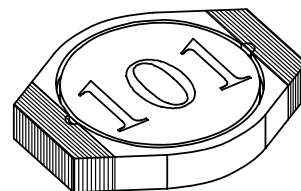
- * PC Cards
- * Electroluminescent displays
- * LCD drivers
- * Hybrids
- * Daughter boards
- * Portable equipment

DESCRIPTION

The P7610 family comprises ultra low profile inductors for height constrained applications. The seated height is a maximum 1.0mm, and the parts employ a ceramic base for optimum heat transfer and mechanical robustness.

The family covers inductance over a range from 1.2 μ H to 330 μ H.

The P7610 family is compliant with RoHS Directive 2002/95/EC and is suitable for Pb-free and conventional placement and reflow.



SPECIFICATIONS

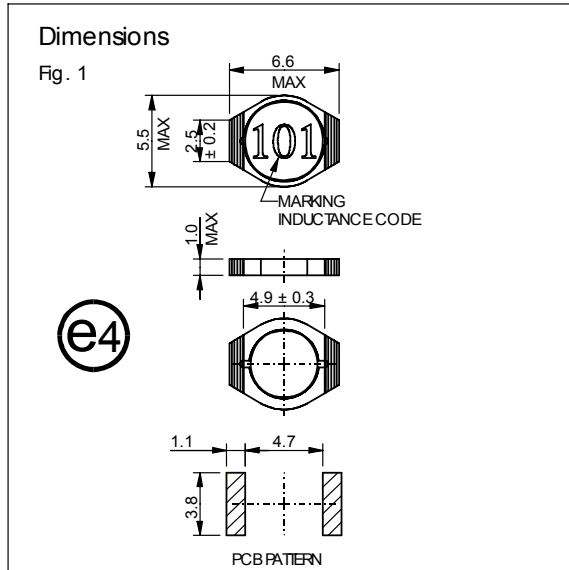
Electrical

Part Number	Inductance (μH) ⁽¹⁾	DCR (m Ω) Max	I _{RMS} (A) ⁽²⁾	I _{sat} (A) ⁽³⁾
P7610-1704-1R2M	1.2 \pm 20%	0.08	1.7	2.1
P7610-1704-1R5M	1.5 \pm 20%	0.10	1.5	1.9
P7610-1704-2R2M	2.2 \pm 20%	0.12	1.4	1.6
P7610-1704-3R3M	3.3 \pm 20%	0.16	1.2	1.3
P7610-1704-4R7M	4.7 \pm 20%	0.20	1.1	1.1
P7610-1704-6R8M	6.8 \pm 20%	0.32	0.85	0.90
P7610-1704-100M	10 \pm 20%	0.41	0.75	0.80
P7610-1704-150M	15 \pm 20%	0.55	0.60	0.65
P7610-1704-220M	22 \pm 20%	0.85	0.52	0.50
P7610-1704-330M	33 \pm 20%	1.3	0.42	0.40
P7610-1704-470M	47 \pm 20%	1.8	0.36	0.35
P7610-1704-680M	68 \pm 20%	2.5	0.30	0.30
P7610-1704-101M	100 \pm 20%	3.5	0.26	0.25
P7610-1704-151M	150 \pm 20%	5.0	0.21	0.18
P7610-1704-221M	220 \pm 20%	7.0	0.18	0.16
P7610-1704-331M	330 \pm 20%	15	0.13	0.13

Notes

1. Inductance measured at 100kHz, 100mV.
2. Rated Current, I_{RMS}, 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 10% max.
4. Operating temperature -25°C to +85°C.
5. For non-standard inductance values, please contact Profec.

CONSTRUCTION

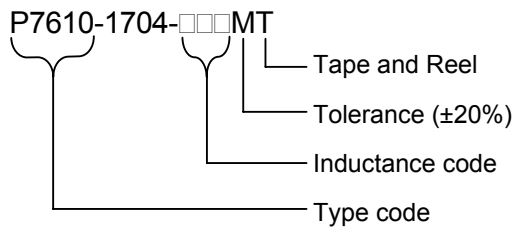


Terminal plating JESD97 category = e4.

Dimensions shown are in millimetres.

Recommended reflow solder profile: 2 minutes @ 150-200°C, 10 seconds @ 260°C; time above 217°C 60 seconds maximum.

ORDERING CODE



ABSOLUTE MAXIMUM RATINGS

Storage temperature	-40°C to +125°C
Operating temperature	-25°C to +85°C
Soldering temperature profile peak	260°C 10s

Handle in accordance with IPC/JEDEC J-STD-033 procedure for components classified as IPC/JEDEC J-STD-020 Moisture Sensitivity Level 2.