HIGH POWER INDUCTOR

P7608 Family

Features

* Lead-free (Pb-free)
* RoHS compliant
* High Current (to 30A)
* Low DCR (to 1mΩ)
* Foil windings
* Closed magnetic circuit

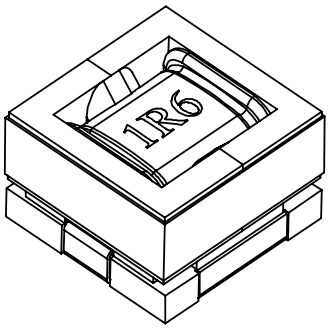
Applications

* DC-DC Converters
* Voltage Regulator Modules
* Distributed Power
* MPU power supplies
* Servers
* Workstations
* Telecom equipment
* Notebook and handheld equipment

DESCRIPTION

The P7608 family comprises high-energy-density surface mount inductors. The family employs copper foil windings, giving excellent DC resistance, thermal efficiency and high frequency performance. The core is a closed magnetic circuit to afford magnetic shielding.

The P7608 family is compliant with RoHS Directive 2002/95/EC and supplied in tape and reel packaging, and is suitable for Pb-free and conventional placement and reflow.



RoHS COMPLIANT

SPECIFICATIONS

Electrical

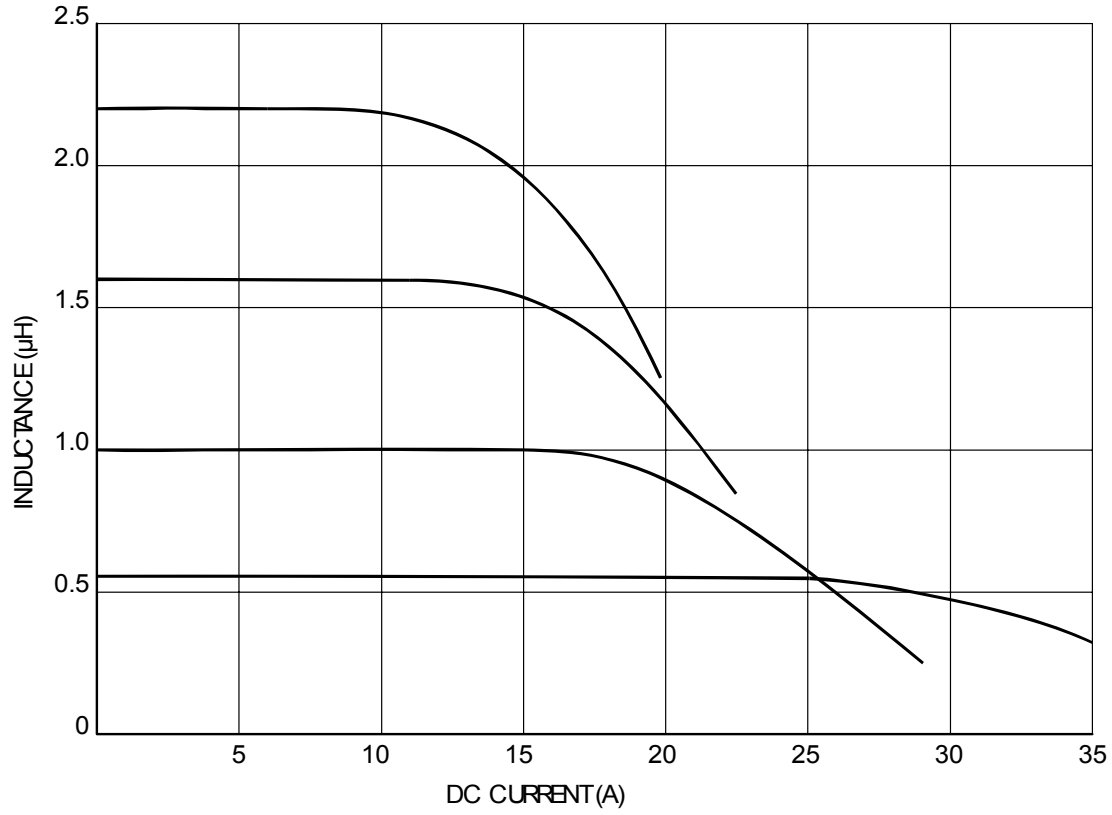
Part Number	Inductance (µH) (1)	DCR (mΩ) Max	Rated Current I_{DC} (A)(2)
P7608-R56Y	0.56±30%	1.0	30
P7608-1R0M	1.0±20%	1.2	22
P7608-1R6M	1.6±20%	1.5	18
P7608-2R2M	2.2±20%	1.9	15

Notes

1. Inductance measured at 100kHz, 1V.
2. Rated current, $I_{DC,}$ is the current at which the temperature rise is 40ºC (max) or the DC current at which the zero-current inductance drops by 25% (max) whichever is less.
3. Operating temperature -25ºC to +85ºC.
4. For non-standard inductance values, please contact Profec.

Effect of DC Current on Inductance (typical)

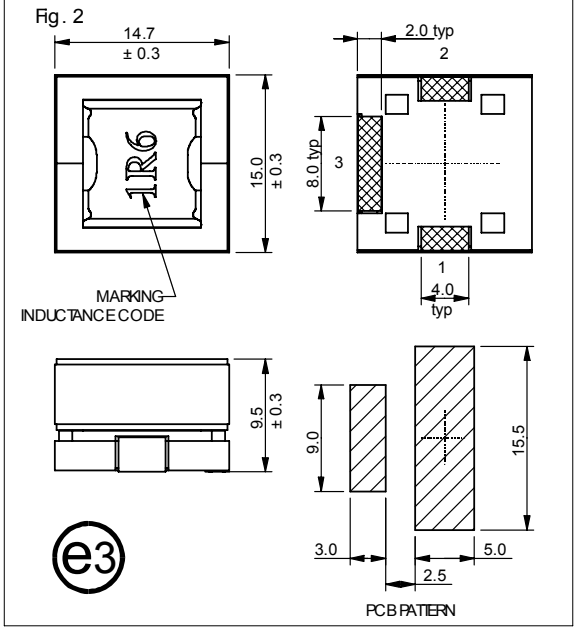
Fig. 1



CONSTRUCTION

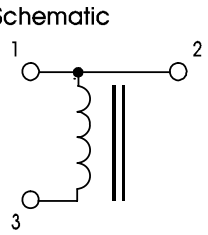
Dimensions

Fig. 2



Connections

Fig. 3



Dimensions shown are in millimetres

Terminal plating JESD97 category = e3.

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

ORDERING CODE

P7608-□□□□T

- Tape and Reel
- Tolerance:
  M = ±20%
  Y = ±30%
  See tabulated values for correct tolerance.
- Inductance code
- Type code

ABSOLUTE MAXIMUM RATINGS

Storage temperature	-40ºC to +105ºC
Operating temperature	-25ºC to +85ºC
Soldering temperature profile peak	260ºC 10s

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

ISO 9001
FM 25326

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