RL1218

Unshielded radial leaded drum core inductors

Product features

- Unshielded, leaded drum core
- Protective sleeving over winding
- Inductance range from 4.7 µH to 12,000 µH
- Current range from 0.20 A to 15 A
- 12.2 mm OD x 18.0 mm through-hole package
- Ferrite core material

Applications

- LED Drivers and lighting
- Utility meters
- Appliances and white goods
- Motor drives
- Power supplies
- General purpose filtering

Environmental data

- Storage temperature range (Component): -40 °C to +125 °C
- Operating temperature range: -40 °C to +125 °C (ambient plus self-temperature rise)

Powering Business Worldwide

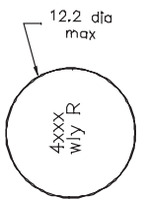
Product specifications

Part Number[4]	OCL[1] (µH)±10%	I_{rms}[2] (A)	I_{sat}[3] (A)	DCR (Ω) @ +20 °C max.	SRF (MHz) typ.
RL1218-4R7-R	4.7±20%	5.65	15.0	0.017	34
RL1218-8R2-R	8.2±20%	4.75	10.7	0.025	25
RL1218-100-R	10	4.61	10.2	0.026	21
RL1218-150-R	15	4.05	8.00	0.034	11
RL1218-220-R	22	3.64	6.60	0.042	8
RL1218-270-R	27	3.44	5.97	0.047	6
RL1218-330-R	33	3.27	5.45	0.052	5
RL1218-101-R	100	2.31	3.16	0.102	3
RL1218-151-R	150	1.89	2.56	0.159	3
RL1218-181-R	180	1.64	2.34	0.211	3
RL1218-221-R	220	1.53	2.10	0.241	2
RL1218-331-R	330	1.25	1.73	0.366	2
RL1218-561-R	560	0.968	1.33	0.606	1
RL1218-102-R	1000	0.677	0.992	1.23	1
RL1218-152-R	1500	0.597	0.809	1.59	0.81
RL1218-472-R	4700	0.322	0.457	5.46	0.40
RL1218-562-R	5600	0.305	0.418	6.11	0.40
RL1218-682-R	6800	0.263	0.379	8.20	0.36
RL1218-123-R	12,000	0.201	0.286	14.1	0.28

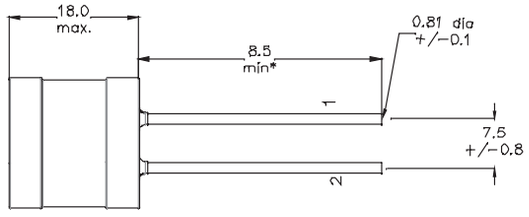
1. Open Circuit Inductance (OCL) Test Parameters: 10 kHz, 0.1 V_{rms}, 0.0 Adc, +25 °C
2. I_{rms}: DC current for an approximate temperature rise of 40 °C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed +125 °C under worst case operating conditions verified in the end application.
3. I_{sat}: Peak current for approximately 5% rolloff at +25 °C
4. Part Number Definition: RL1218-yyy-R
   - RL1218 = Product code and size
   - yyy= Inductance value in µH, R = decimal point, if no R is present then third character = number of zeros.
   - "-R" suffix = RoHS compliant

Dimensions - mm

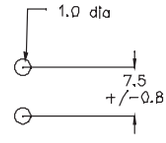
Top view



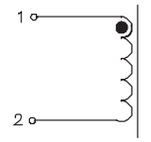
Side view



Recommended pad layout



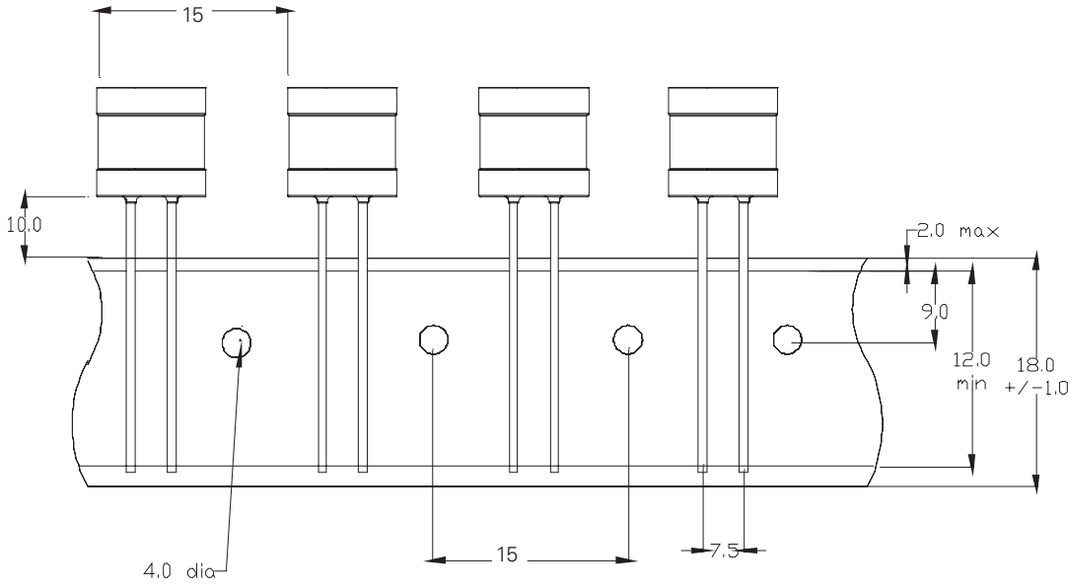
Schematic



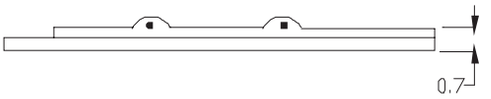
Part marking: 4xxx
wly R
4 = RL1218
xxx = inductance in µH, R = decimal point; if there is no "R" then third character = number of zeros wly = date code, R = revision level

* Lead length is after the components are trimmed from the packaging tape roll.
Do not route traces or vias underneath the inductor

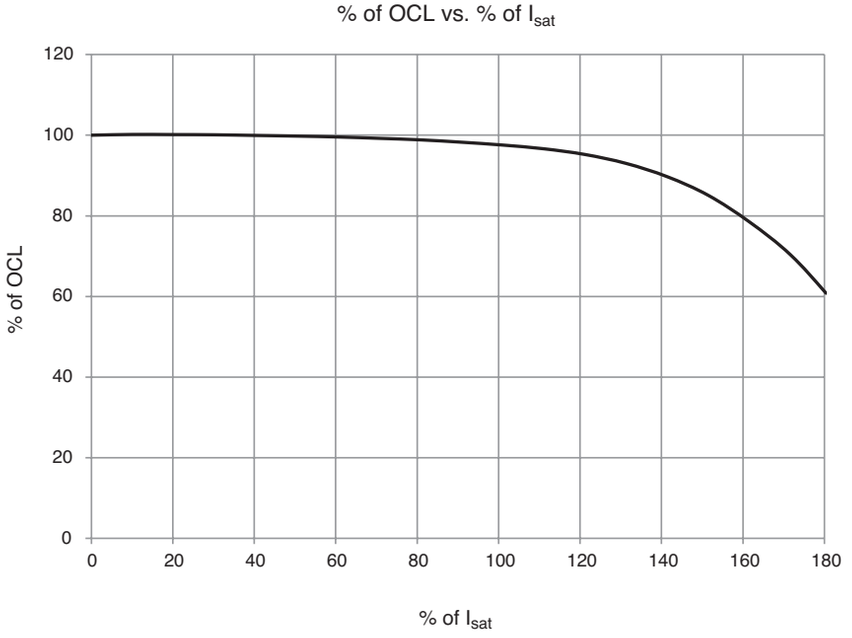
Packaging information - mm



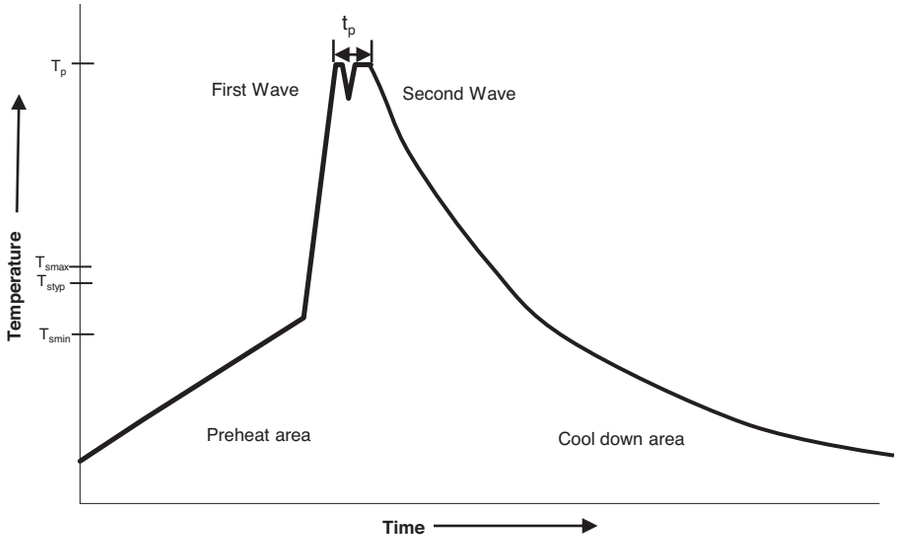
Packaged 800 parts per roll



Inductance characteristics



Wave solder profile



Reference EN 61760-1:2006

Profile Feature	Standard SnPb Solder	Lead (Pb) Free Solder
Preheat Temperature min. (T_{smin}) Temperature typ. (T_{styp}) Temperature max. (T_{smax}) Time (T_{smin} to T_{smax}) (t_s)	 100°C 120°C 130°C 70 seconds	 100°C 120°C 130°C 70 seconds
Δ preheat to max Temeperature	150°C max.	150°C max.
Peak temperature (T_p)	235°C - 260°C	250°C - 260°C
Time at peak temperature (t_p)	10 seconds max 5 seconds max each wave	10 seconds max 5 seconds max each wave
Ramp-down rate	~ 2 K/s min ~3.5 K/s typ ~5 K/s max	~ 2 K/s min ~3.5 K/s typ ~5 K/s max
Time 25°C to 25°C	4 minutes	4 minutes

Manual solder

350°C, 4-5 seconds. (by soldering iron), generally manual, hand soldering is not recommended.

Life Support Policy: Eaton does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

Eaton reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this bulletin.

Eaton
Electronics Division
1000 Eaton Boulevard
Cleveland, OH 44122
United States
www.eaton.com/electronics

© 2017 Eaton
All Rights Reserved
Printed in USA
Publication No. 10338 BU-SB14695
October 2017

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

Powering Business Worldwide

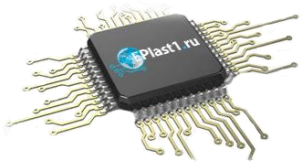
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.