

Overview

KEMET's MPLCH Series of metal composite inductors is ideal for use in DC to DC switching power supplies. The combination of composite core material and round wire allows these inductors to provide high permeability, low DC resistance and high inductance.

Applications

- Switching DC-DC power supplies
- Notebook computers
- Tablets
- Embedded computer systems
- HDTVs
- DVD and BluRay players

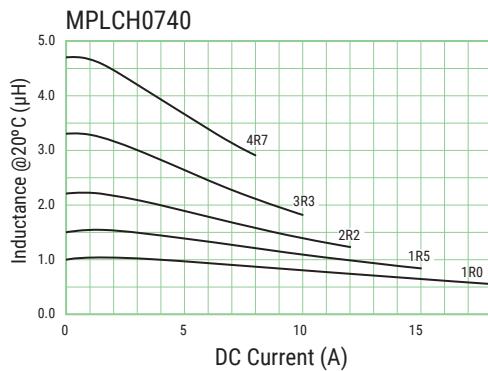
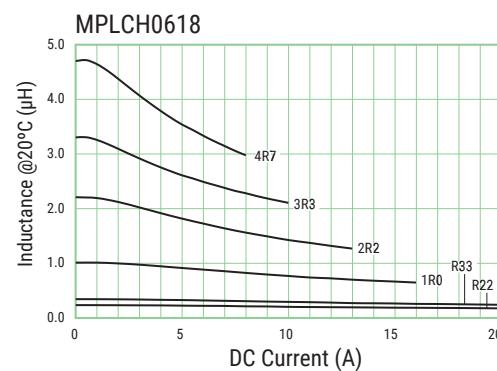
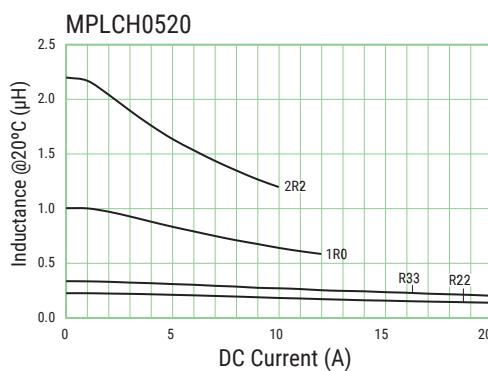


Part Number System

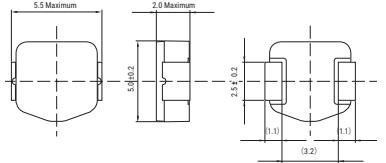
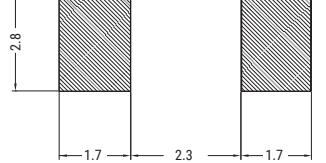
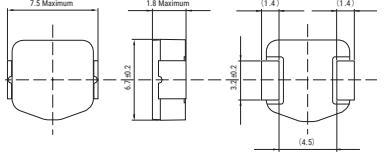
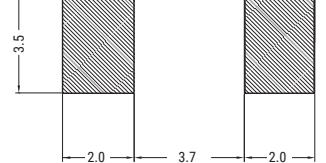
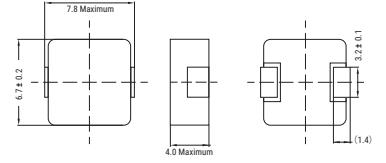
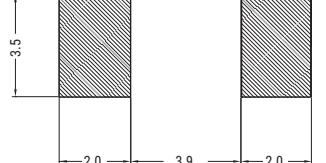
MPLCH	0740	L	1R0
Series	Size Code	Inductor	Inductance Code μ H
MPLCH	0520 0618 0740		R = decimal point Example: 1R0 = 1.0 μ H

Table 1 – Ratings & Part Number Reference

Part Number	Inductance (μH) at 100 kHz	Inductance Tolerance	DC Resistance (mΩ) ±10%	Rated Current (A)	
				Irms ¹ (Ref.)	Isat ² (Ref.)
MPLCH0520LR22	0.22	±20%	5.7	10.1	14.2
MPLCH0520LR33	0.33	±20%	6.8	9.1	14.0
MPLCH0520L1R0	1.0	±20%	23.3	4.9	8.1
MPLCH0520L2R2	2.2	±20%	45.5	3.5	5.9
MPLCH0618LR22	0.22	±20%	3.9	16.1	22.4
MPLCH0618LR33	0.33	±20%	6.0	13.3	18.9
MPLCH0618L1R0	1.0	±20%	17.8	7.5	12.5
MPLCH0618L2R2	2.2	±20%	37.0	5.3	8.2
MPLCH0618L3R3	3.3	±20%	58.0	4.1	7.6
MPLCH0618L4R7	4.7	±20%	78.0	3.6	6.2
MPLCH0740L1R0	1.0	±20%	6.0	13.6	13.4
MPLCH0740L1R5	1.5	±20%	9.0	11.1	10.8
MPLCH0740L2R2	2.2	±20%	13.0	9.3	9.0
MPLCH0740L3R3	3.3	±20%	19.0	7.8	7.0
MPLCH0740L4R7	4.7	±20%	33.0	5.8	6.5

¹ T = 40 K rise at rated current.² Inductance drop 20% at rated current.**DC-Superposed Characteristics**

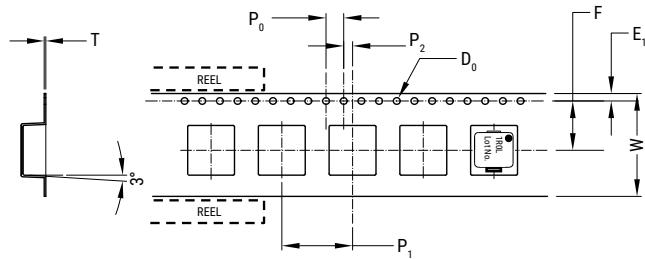
Specifications

Part Number	Dimensions (mm)	Land Pattern
MPLCH0520		
MPLCH0618		
MPLCH0740		

Operating temperature range: -20°C to +120°C (Include self temperature rise)

Taping Specification

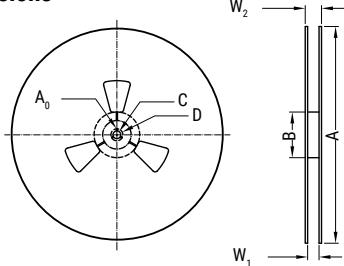
Dimensions of indented square hole plastic tape



Series	Reel Qty		Dimensions (mm)							
			W	F	E ₁	P ₁	P ₂	P ₀	øD ₀	T
MPLCH0520	5,000	Tolerance	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05
		Nominal	12.0	5.5	1.75	8.0	2.0	4.0	1.55	0.4
MPLCH0618	3,500	Tolerance	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05
		Nominal	16.0	7.5	1.75	12.0	2.0	4.0	1.55	0.4
MPLCH0740	1,000	Tolerance	±0.2	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05
		Nominal	16.0	7.5	1.75	12.0	2.0	4.0	1.55	0.4

Reel Specifications

Reel dimensions



Series		Dimensions (mm)							
		A	B	C	D	A ₀	r	W ₁	W ₂
MPLCH0520	Tolerance	±1.0	±10	±1.0	±0.8	±0.5		±1.5	±2.0
	Nominal	ø380	ø95	ø13.5	ø21.0	2.0	R1.0	14.5	18.5
MPLCH0618	Tolerance	±5.0	±10	±1.0	±0.8	±0.5		±1.0	±1.5
	Nominal	ø380	ø95	ø13.5	ø21.0	2.0	R1.0	18.0	21.6
MPLCH0740	Tolerance	±1.0	±5.0	±0.2	±0.8	±0.5		±1.0	±1.0
	Nominal	ø330	ø80	ø13.0	ø21.0	2.0	R1.0	17.5	21.5

KEMET Electronic Corporation Sales Offices

For a complete list of our global sales offices, please visit www.kemet.com/sales.

Disclaimer

All product specifications, statements, information and data (collectively, the "Information") in this datasheet are subject to change. The customer is responsible for checking and verifying the extent to which the Information contained in this publication is applicable to an order at the time the order is placed.

All Information given herein is believed to be accurate and reliable, but it is presented without guarantee, warranty, or responsibility of any kind, expressed or implied.

Statements of suitability for certain applications are based on KEMET Electronics Corporation's ("KEMET") knowledge of typical operating conditions for such applications, but are not intended to constitute – and KEMET specifically disclaims – any warranty concerning suitability for a specific customer application or use. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by KEMET with reference to the use of KEMET's products is given gratis, and KEMET assumes no obligation or liability for the advice given or results obtained.

Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[NEC-Tokin KEMET](#):

[MPLCH0740L3R3](#) [MPLCH0740L1R5](#) [MPLCH0740L4R7](#) [MPLCH0740L2R2](#)