



**THE DATASHEET OF
MPCH1060LR45**



Overview

KEMET's MPCH Series of metal composite inductors is designed for use in power supplies with ripple currents up to 31 A. These inductors offer superior permeability when compared to technologies based on ferrite cores.

The flat wire design allows for high efficiency under high current loads.

Applications

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



Part Number System

MPCH	0730	L	R12
Series	Size Code	Inductor	Inductance Code μH
MPCH	0730 0740 1040 1055 1060 1250		R = decimal point Examples: R12 = 0.12 μH 1R3 = 1.30 μH

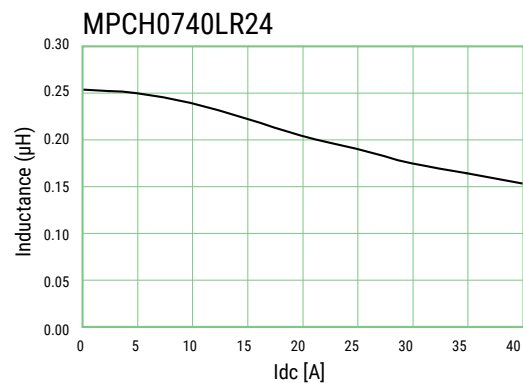
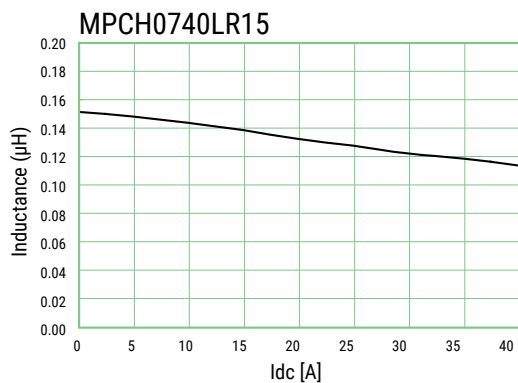
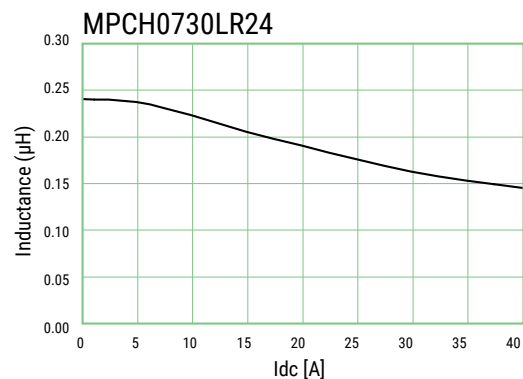
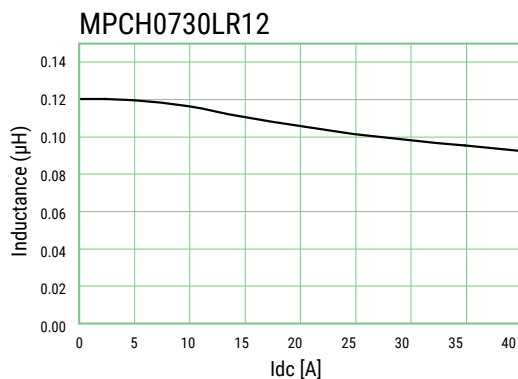
Table 1 – Ratings & Part Number Reference

Part Number	Inductance (μH) at 100 kHz	Inductance Tolerance	DC Resistance ($\text{m}\Omega$) $\pm 10\%$	Rated Current (A)	
				I_{rms}^1 (Ref.)	I_{sat}^2 (Ref.)
MPCH0730LR12	0.12	$\pm 20\%$	0.65	31.0	32.0
MPCH0730LR24	0.24	$\pm 20\%$	1.20	23.0	19.0
MPCH0740LR15	0.15	$\pm 20\%$	0.93	29.0	31.0
MPCH0740LR24	0.24	$\pm 20\%$	1.00	27.0	20.0
MPCH0740LR36E	0.36	$\pm 20\%$	1.42	23.0	22.0
MPCH1040LR36	0.36	$\pm 20\%$	0.88	28.0	24.0
MPCH1040LR1R0	1.00	$\pm 20\%$	2.30	17.0	17.0
MPCH1055LR1R3	1.30	$\pm 20\%$	2.30	18.5	17.0
MPCH1060LR45	0.45	$\pm 20\%$	0.76	32.0	32.0
MPCH1250LR1R5	1.50	$\pm 20\%$	2.20	21.0	21.0

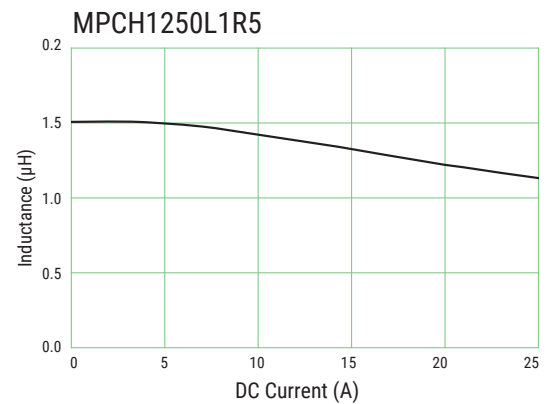
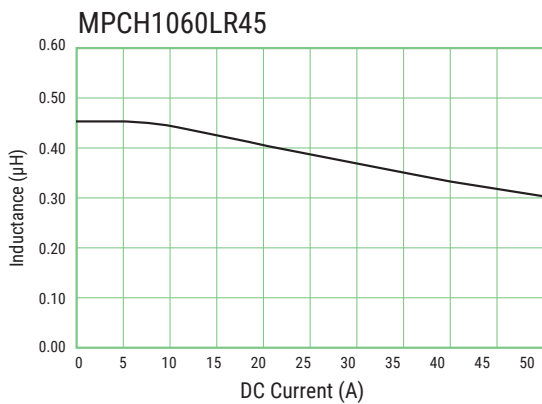
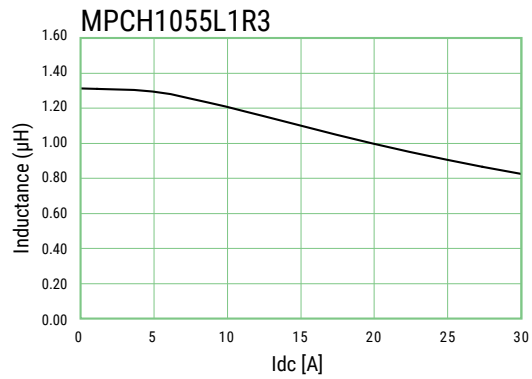
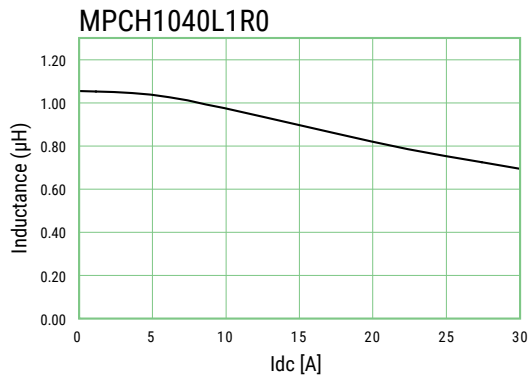
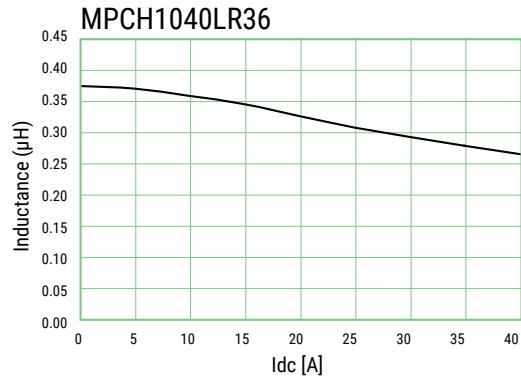
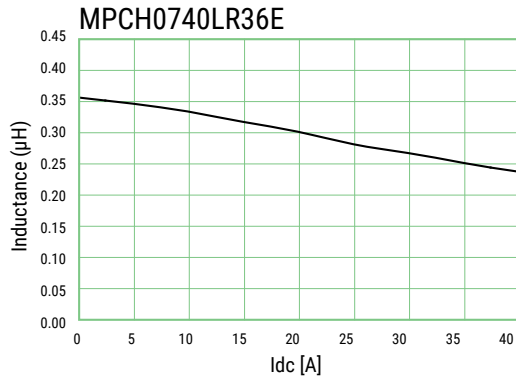
¹ $T = 40\text{ K}$ rise at rated current.

² Inductance drop 20% at rated current.

DC-Superposed Characteristics



DC-Superposed Characteristics cont'd



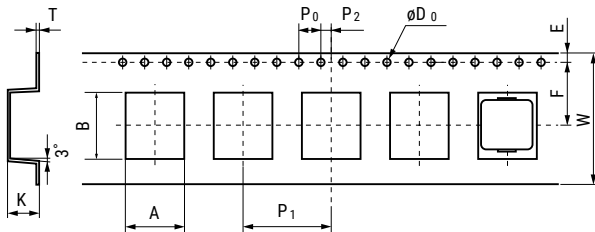
Specifications

Part Number	Dimensions (mm)	Land Pattern
MPCH0730LR12 MPCH0730LR24 MPCH0740LR15 MPCH0740LR24 MPCH0740LR36E		
MPCH1040LR36 MPCH1040LR10		
MPCH1055L1R3		
MPCH1060LR45		
MPCH1250L1R5		

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

Taping Specification

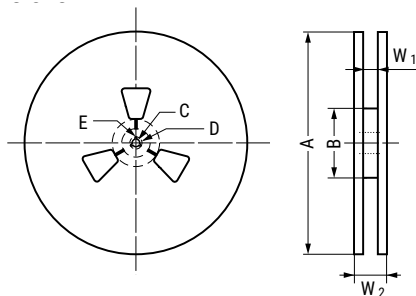
Dimensions of indented square hole plastic tape



Series	Reel Qty		Dimensions (mm)											
			A	B	W	F	E	P ₁	P ₂	P ₀	øD ₀	T	K	
MPCH0730, MPCH0740	1,000	Tolerance	±0.1	±0.1	±0.2	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1
		Nominal	7.0	8.0	16.0	7.5	1.75	12.0	2.0	4.0	1.55	0.4	5.3	
MPCH1040*	500*	Tolerance	±0.1	±0.1	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1	
		Nominal	10.5	12.1	24.0	11.5	1.75	16.0	2.0	4.0	1.55	0.4	5.2	
MPCH1055	500	Tolerance	±0.1	±0.1	±0.2	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1	
		Nominal	10.5	12.1	24.0	11.5	1.75	24.0	2.0	4.0	1.55	0.4	6.0	
MPCH1060	500	Tolerance	±0.1	±0.1	±0.2	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1	
		Nominal	10.5	12.1	24.0	11.5	1.75	24.0	2.0	4.0	1.55	0.4	6.5	
MPCH1250	500	Tolerance	±0.1	±0.1	±0.2	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1	
		Nominal	13.1	12.1	24.0	11.5	1.75	24.0	2.0	4.0	1.55	0.4	5.4	

* MPCH1040LR36 Reel Qty = 1,000

Reel Specifications



Series		Dimensions (mm)							
		A	B	C	D	E	r	W ₁	W ₂
MPCH0730, MPCH0740	Tolerance	±2.0	±1.0	±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
MPCH1040	Tolerance	±5.0	±5.0	±0.5	±1.0	±0.5		±2.0	±3.0
	Nominal	ø330	ø80	ø13.5	ø21.0	2.0	R1.0	24.4	30.4
MPCH1055 MPCH1060 MPCH1250	Tolerance	±2.0	±1.0	±0.5	±0.8	±0.5		±2.0	±3.0
	Nominal	ø380	ø100	ø13.0	ø21.0	2.0	R1.0	24.4	30.4

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.

KEMET is a registered trademark of KEMET Electronics Corporation.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View MPCH1060LR45 on WIN SOURCE](#)

 [Kemet Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management