

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

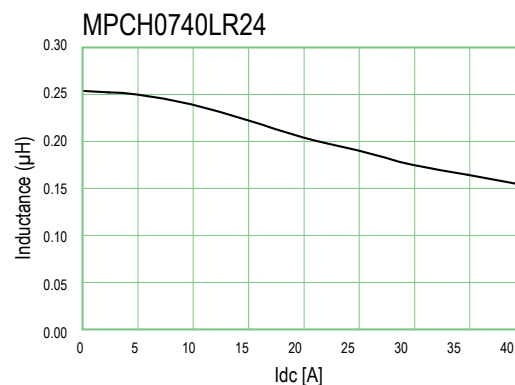
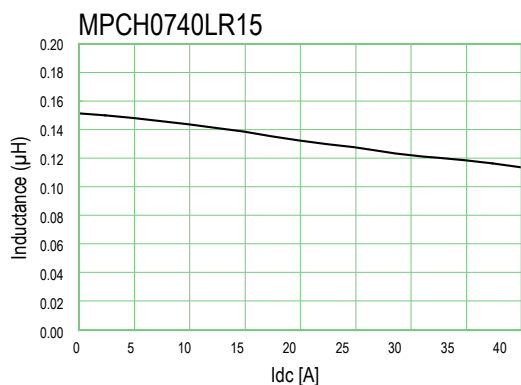
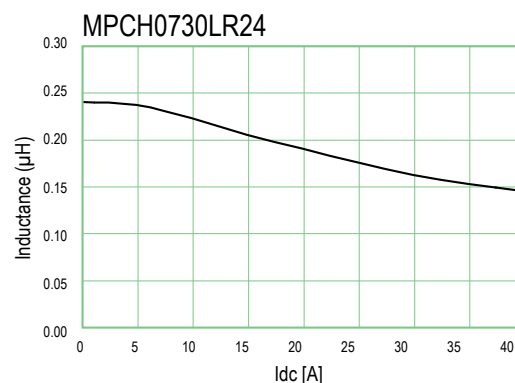
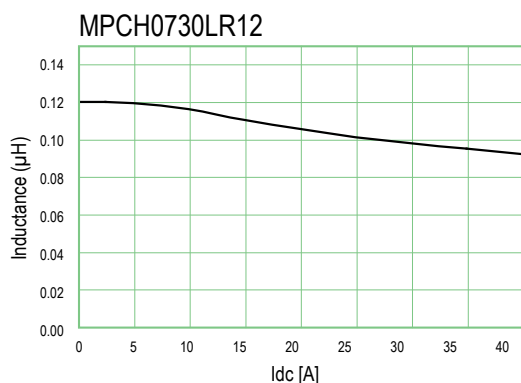


Part Number System

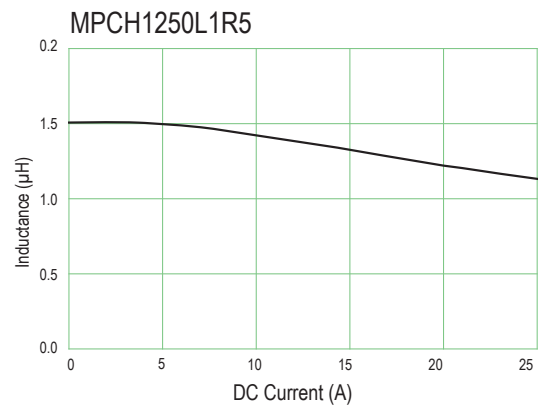
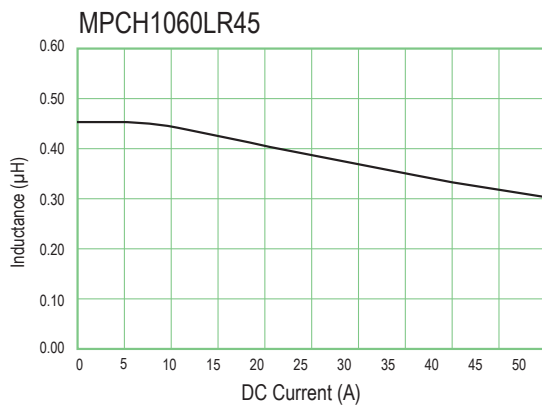
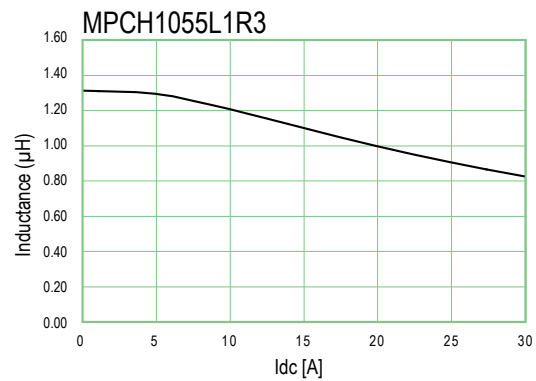
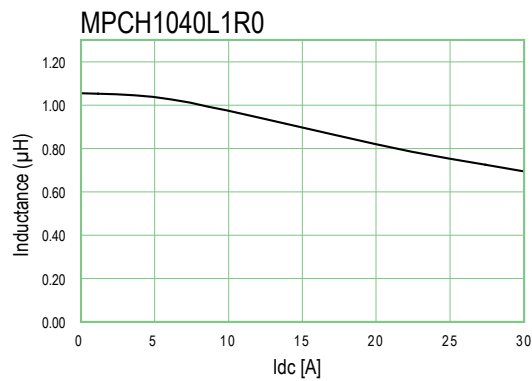
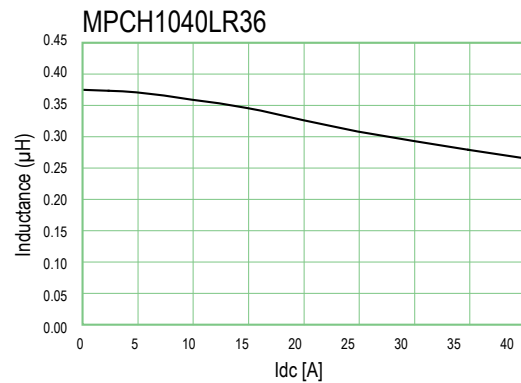
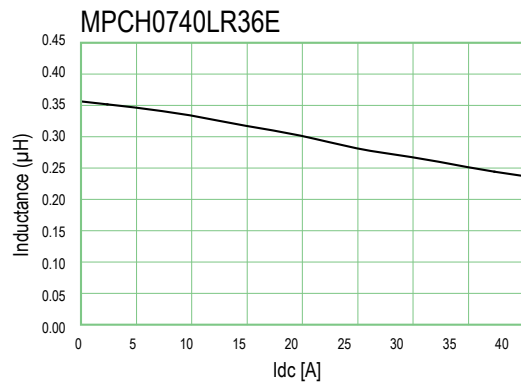
MPCH	0730	L	R12
Series	Size Code	Inductor	Inductance Code μ H
MPCH	0730 0740 1040 1055 1060 1250		R = decimal point Examples: R12 = 0.12 μ H 1R3 = 1.30 μ H

Table 1 – Ratings & Part Number Reference

Part Number	Inductance (μH) @ 100 kHz	Inductance Tolerance	DC Resistance (mΩ) ±10%	Rated Current (A)	
				I _{rms} ¹ (Ref.)	I _{sat} ² (Ref.)
MPCH0730LR12	0.12	±20%	0.65	31.0	32.0
MPCH0730LR24	0.24	±20%	1.20	23.0	19.0
MPCH0740LR15	0.15	±20%	0.93	29.0	31.0
MPCH0740LR24	0.24	±20%	1.00	27.0	20.0
MPCH0740LR36E	0.36	±20%	1.42	23.0	22.0
MPCH1040LR36	0.36	±20%	0.88	28.0	24.0
MPCH1040L1R0	1.00	±20%	2.30	17.0	17.0
MPCH1055L1R3	1.30	±20%	2.30	18.5	17.0
MPCH1060LR45	0.45	±20%	0.76	32.0	32.0
MPCH1250L1R5	1.50	±20%	2.20	21.0	21.0

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

DC-Superposed Characteristics cont'd



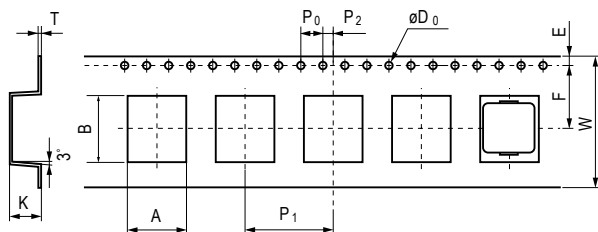
Specifications

Part Number	Dimensions (mm)	Land Pattern
MPCH0730LR12 MPCH0730LR24 MPCH0740LR15 MPCH0740LR24 MPCH0740LR36E		
MPCH1040LR36 MPCH1040L1R0		
MPCH1055L1R3		
MPCH1060LR45		
MPCH1250L1R5		

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

Taping Specification

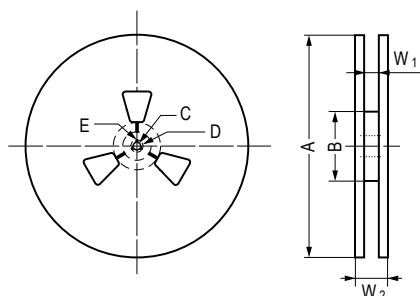
Dimensions of indented square hole plastic tape



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	±0.05	±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 Corporation
World Headquarters**

2835 KEMET Way
Simpsonville, SC 29681

Mailing Address:
P.O. Box 5928
Greenville, SC 29606

www.kemet.com
Tel: 864-963-6300
Fax: 864-963-6521

Corporate Offices
Fort Lauderdale, FL
Tel: 954-766-2800

North America**Southeast**

Lake Mary, FL
Tel: 407-855-8886

Northeast

Wilmington, MA
Tel: 978-658-1663

Central

Novi, MI
Tel: 248-306-9353

West

Milpitas, CA
Tel: 408-433-9950

Mexico

Guadalajara, Jalisco
Tel: 52-33-3123-2141

Europe**Southern Europe**

Paris, France
Tel: 33-1-4646-1006

Sasso Marconi, Italy
Tel: 39-051-939111

Central Europe

Landsberg, Germany
Tel: 49-8191-3350800

Kamen, Germany
Tel: 49-2307-438110

Northern Europe

Bishop's Stortford, United Kingdom
Tel: 44-1279-460122

Espoo, Finland
Tel: 358-9-5406-5000

Asia**Northeast Asia**

Hong Kong
Tel: 852-2305-1168

Shenzhen, China
Tel: 86-755-2518-1306

Beijing, China
Tel: 86-10-5829-1711

Shanghai, China
Tel: 86-21-6447-0707

Taipei, Taiwan
Tel: 886-2-27528585

Southeast Asia

Singapore
Tel: 65-6586-1900

Penang, Malaysia
Tel: 60-4-6430200

Bangalore, India
Tel: 91-806-53-76817

Note: KEMET reserves the right to modify minor details of internal and external construction at any time in the interest of product improvement. KEMET does not assume any responsibility for infringement that might result from the use of KEMET Capacitors in potential circuit designs. KEMET is a registered trademark of KEMET Electronics Corporation.

Disclaimer

This product has been made available through a Private Label Agreement and a Development and Cross-Licensing Agreement between KEMET and NEC TOKIN to expand market and product offerings for both companies and their respective customers. For more information, please visit <http://www.kemet.com/nectokin>.

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.

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com