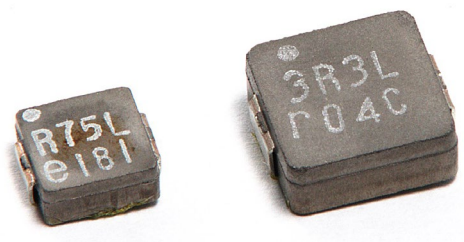


Overview

KEMET's MPLC Series of metal composite inductors offers large inductance values for use in DC to DC switching power supplies. These inductors offer superior permeability when compared to technologies based on ferrite cores. The round wire design allows for higher inductance compared to other wire designs.

Applications

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



Part Number System

MPLC	0730	L	1R0
Series	Size Code	Inductor	Inductance Code μ H
MPLC	0730 1040		R = decimal point Example: 1R0 = 1.0 μ H

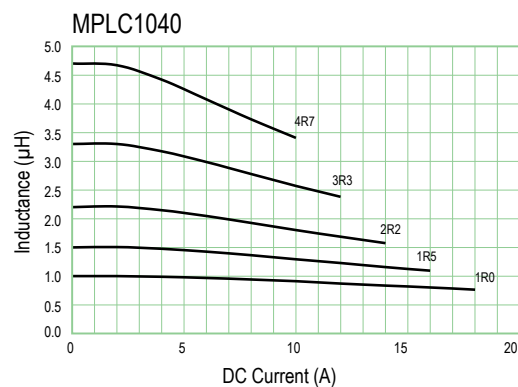
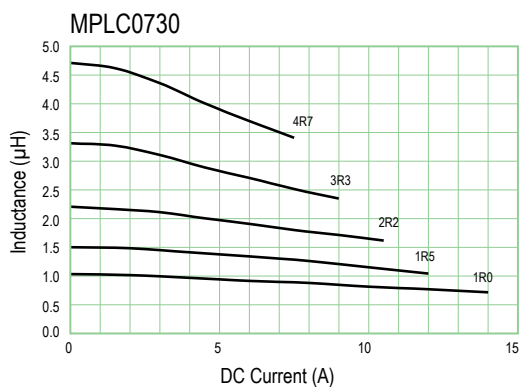
Table 1 – Ratings & Part Number Reference

Part Number	Inductance (μH) @ 100 kHz	Inductance Tolerance	DC Resistance ($\text{m}\Omega$) $\pm 10\%$	Rated Current (A)	
				I_{rms}^1 (Ref.)	I_{sat}^2 (Ref.)
MPLC0730L1R0	1.0	$\pm 20\%$	9.0	10.6	11.0
MPLC0730L1R5	1.5	$\pm 20\%$	15.0	8.6	8.8
MPLC0730L2R2	2.2	$\pm 20\%$	19.0	7.3	8.2
MPLC0730L3R3	3.3	$\pm 20\%$	30.0	5.7	6.5
MPLC0730L4R7	4.7	$\pm 20\%$	41.0	5.0	5.6
MPLC1040L1R0	1.0	$\pm 20\%$	5.5	14.3	16.2
MPLC1040L1R5	1.5	$\pm 20\%$	7.0	12.4	12.7
MPLC1040L2R2	2.2	$\pm 20\%$	10.0	10.5	11.0
MPLC1040L3R3	3.3	$\pm 20\%$	14.0	8.8	9.3
MPLC1040L4R7	4.7	$\pm 20\%$	19.0	8.0	8.0

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

² Inductance drop 20% at rated current.

DC-Superposed Characteristics



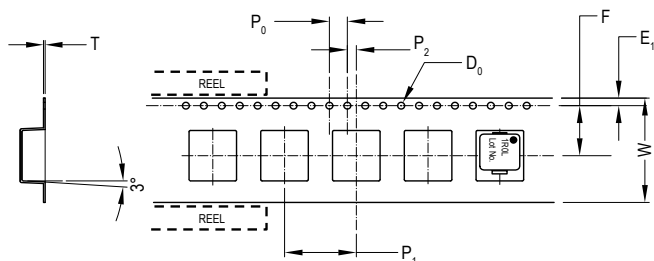
Specifications

Part Number	Dimensions (mm)	Land Pattern
MPLC0730		
MPLC1040		

Operating temperature range: -20°C to $+120^{\circ}\text{C}$ (Include self temperature rise)

Taping Specification

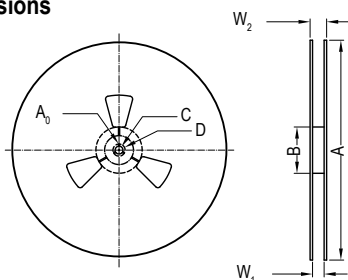
Dimensions of indented square hole plastic tape



Series	Reel Qty		Dimensions (mm)							
			W	F	E ₁	P ₁	P ₂	P ₀	øD ₀	T
MPLC0730	1,000	Tolerance	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05
		Nominal	24.0	11.5	1.75	16.0	2.0	4.0	1.55	0.4
MPLC1040	500	Tolerance	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05
		Nominal	24.0	11.5	1.75	16.0	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
MPLC0730	Tolerance	±5.0	±5.0	±0.5	±0.8	±0.5		±0.5	±0.5
	Nominal	ø380	ø80	ø13.5	ø21.0	2.0	R1.0	25.5	29.5
MPLC1040	Tolerance	±2.0	±1.0	±0.5	±0.8	±0.5		±2.0	±3.0
	Nominal	ø330	ø80	ø13.5	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

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