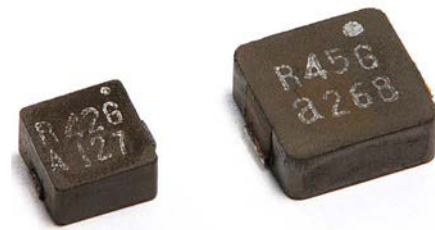


Overview

KEMET's MPCG Series of metal composite inductors is designed with a very low loss core and flat wire design, which enables very high efficiency at high ripple currents. The core material used is ideal for high switching frequency applications.

Applications

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



Part Number System

MPCG	1040	L	R45
Series	Size Code	Inductor	Inductance Code μH
MPCG	0730 0740 1040		R = decimal point Example: R45 = 0.45 μH

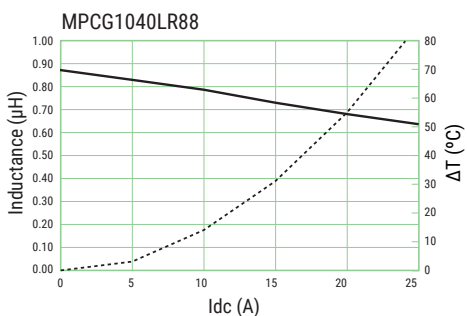
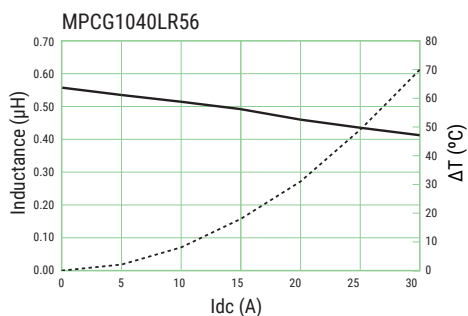
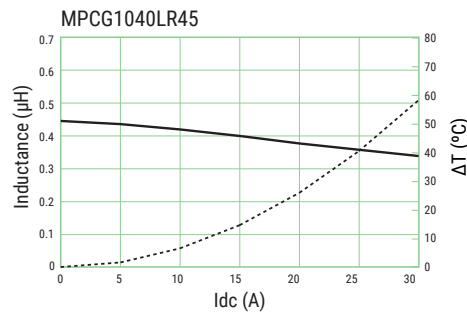
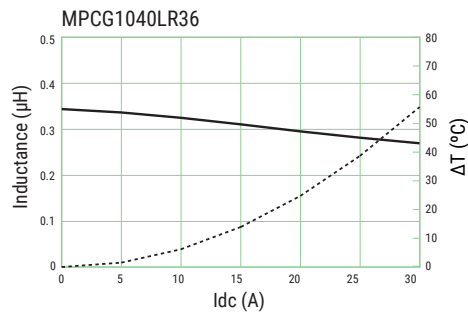
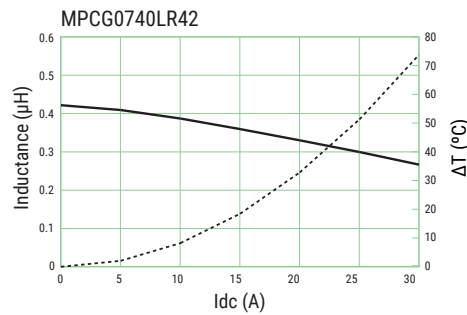
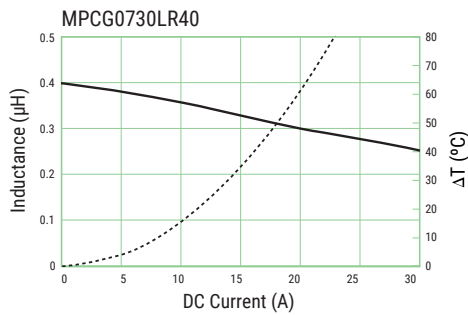
Table 1 – Ratings & Part Number Reference

Part Number	Inductance (μH) at 100 kHz	Inductance Tolerance	DC Resistance (mΩ) ±10%	Rated Current (A)	
				I _{rms} ¹ (Ref.)	I _{sat} ² (Ref.)
MPCG0730LR40	0.40	±20%	2.60	16.0	16.0
MPCG0740LR42	0.42	±20%	1.55	22.0	20.0
MPCG1040LR36	0.36	±20%	1.05	25.0	30.0
MPCG1040LR45	0.45	±20%	1.10	25.0	27.0
MPCG1040LR56	0.56	±20%	1.30	23.0	23.0
MPCG1040LR88	0.88	±20%	2.30	17.0	19.0

¹ T = 40 K rise at rated current.

² Inductance drop 20% at rated current.

DC-Superposed Characteristics



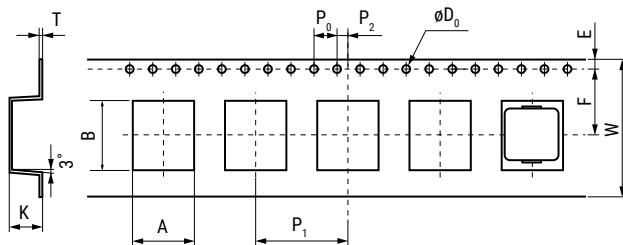
Specifications

Part Number	Dimensions (mm)	Land Pattern
MPCG0730LR40		
MPCG0740LR42		
MPCG1040LR36 MPCG1040LR45 MPCG1040LR56 MPCG1040LR88		

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

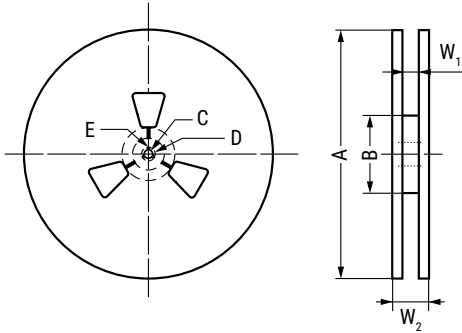
Taping Specification

Dimensions of indented square hole plastic tape



Series	Reel Qty		Dimensions (mm)											
			A	B	W	F	E	P ₁	P ₂	P ₀	øD ₀	T	K	
MPCG0730	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
MPCG0740		Nominal	7.0	8.0	16.0	7.5	1.75	12.0	2.0	4.0	1.55	0.4	5.3	
MPCG1040	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	16.0	2.0	4.0	1.55	0.4	5.2	

Reel Specifications



Series		Dimensions (mm)							
		A	B	C	D	E	r	W ₁	W ₂
MPCG0730	Tolerance	±2.0	±1.0	±0.2	±0.8	±0.5		±1.0	±1.0
MPCG0740	Nominal	ø330	ø80	ø13.0	ø21.0	2.0	R1.0	17.5	21.5
MPCG1040	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

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