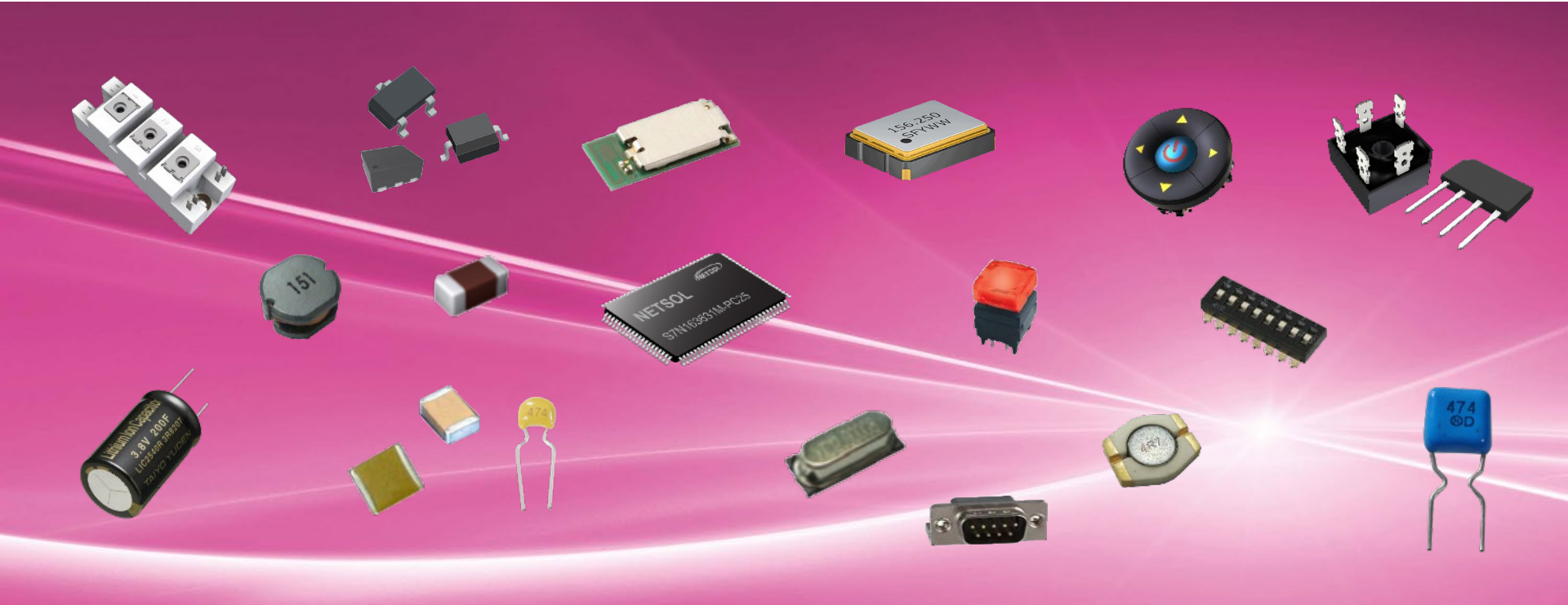


# Multilayer Power Inductor



Chilisin

15.10.2020

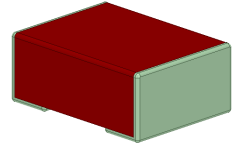
# BKAP Series – High Isat Multilayer Inductor

## Features:

- Multi-Layer + Alloy Powder Structure
- High Isat, Low RDC
- Low profile
- Inductance 0.47uH to 0.82uH
- Size 1.2\*1.0\*0.6mm to 2.5\*2.0\*0.65mm
- Isat upto 6A

## Applications:

- Smart Phones
- Bluetooth Headsets
- Tablet PCs, PND
- Wearable devices
- LED Lighting
- IoT, Wireless modules



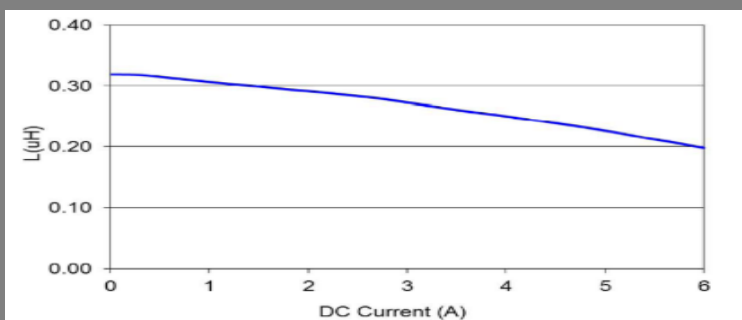
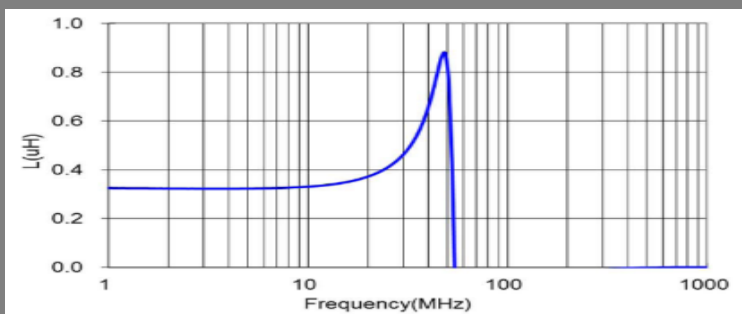
## Electrical Characteristics (partial list)

Part No.	Dimension (mm)	Ls (uH)	DCR (mOhm)		Idc (A)		Isat (A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
BKAP001210F0R47M00	1.2x1.0x0.60	0.47	87	100	2.3	1.8	2.1	1.8
BKAP001608F5R24M00	1.6x0.8x0.65	0.24	50	62.5	3.1	2.5	4.2	3.3
BKAP002012F0R24M00	2.0x1.25x0.60	0.24	35	45	3.5	2.5	3.8	3.3
BKAP002012F0R47M00	2.0x1.25x0.60	0.47	70	87.5	2.0	1.5	3.0	2.5
BKAP002016F0R24M00	2.0x1.6x0.60	0.24	40	50	3.65	3.25	4.0	3.5
BKAP002016G7R82M00	2.0x1.6x0.60	0.82	97	112	2.0	1.5	2.0	1.5
BKAP002520F0R24M00	2.5x2.0x0.60	0.24	30	37.5	4.2	3.7	5.5	5.0
BKAP002520F5R24M00	2.5x2.0x0.65	0.24	27	33.7	4.8	4.3	6.0	5.5

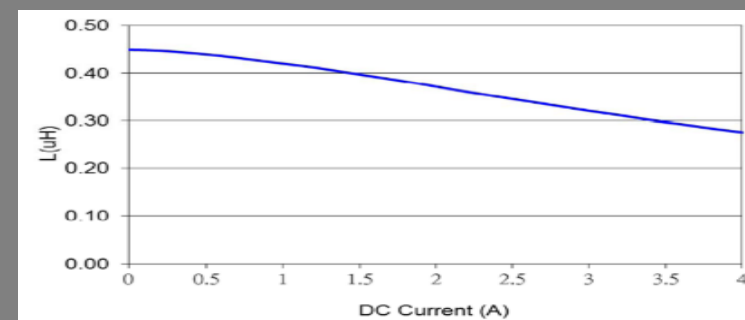
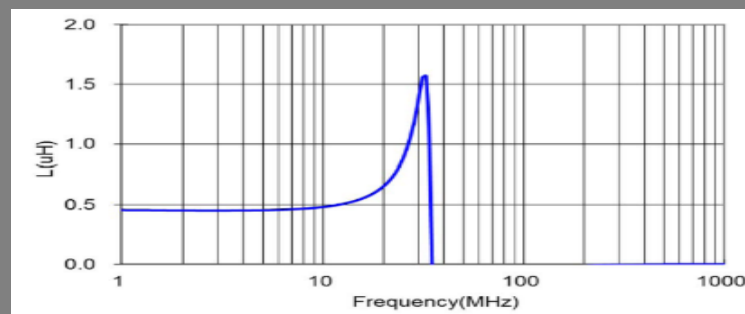
# BKAP Series- Performances

Part No.	Dimension (mm)	Ls (uH)	DCR max. (mOhm)	Idc max. (A)	Isat max. (A)
BKAP001412F5R33M00	1.4x1.2x0.65	0.33	32	2.5	4.0
MCFE1608TR24MG	1.6x0.8x0.65	0.24	100	1.5	2.6
BKAP001412F5R47M00	1.4x1.2x0.65	0.47	42	2.0	3.0
MCFE1608TR47MG	1.6x0.8x0.65	0.47	150	1.2	2

## BKAP001412F5R33M00



## BKAP001412F5R47M00



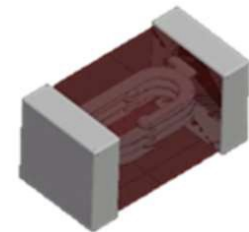
# BKPE Series – Multilayer Inductor

## Features:

- Multi-Layer + Ferrite Structure
- New Process and material enhancements
- Improved BKPA/BKPB series
  - Low Profile
  - Isat increased by 64%
  - Irms increased by 12%
- 1608, 2012, 2520 sizes, Isat up to 5A

## Applications:

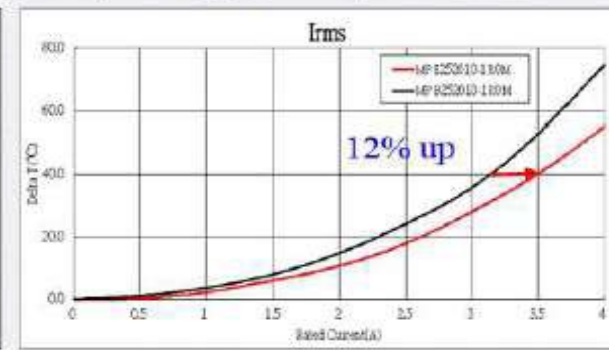
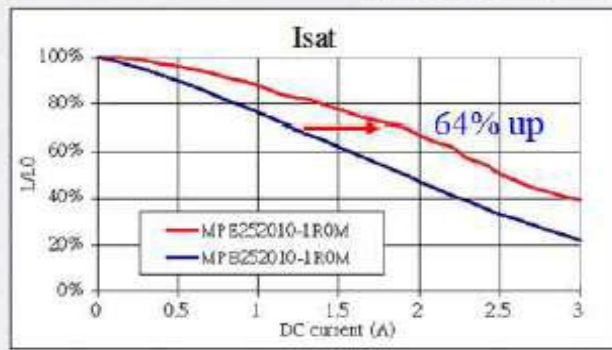
- DC-DC converters
- Mobile phones
- Wearable Devices
- Wireless Modules




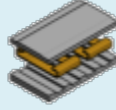
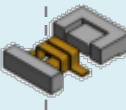
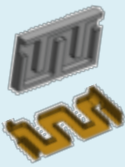



1.6x0.8x0.5mm

## Comparison between BKPE and BKPB Series

Part Number	Is (uH)	RDC (mΩ)	Isat@30% (A)	Irms@40°C (A)
BKPE00252010-1R0	0.937	53	1.91	3.5
BKPB00252010-1R0	0.933	60	1.16	3.12



# WW Ferrite Power Inductor Roadmap

	2018	2019	2020	2021	2022	2023
<b>Core Material</b>	MnZn $\mu$ : 1000~ 250kW/m3 @50mT ,1MHz Freq : ~3MHz Alloy Sintered $\mu$ : 45~	MnZn $\mu$ : 800~220kW/m3 @50mT,1MHz Freq : ~5MHz Alloy Sintered $\mu$ : 70~	MnZn + Alloy Combination Alloy Sintered $\mu$ : 90~	Low Permeability, Low Core Loss High Bs, Low Temp Derating		
<b>New Structure</b>	 Ω-Shape  U-Shape  2 turns  Meander Shape  2 layers welding assembly  Flat Wire +Case Core  Multi-Phase Non-Couple	Low DCR, Low profile, High current, Increase more turns, Usage of various material combination				
<b>Operating Voltage</b>	~48V (V-core) 220V	~60V(V-core) 220V+	60+V(V-core) 220V+	3KV + insulation voltage		
<b>Weatherability</b>	180°C	200°C+				

# Your contact person for Multilayer Power Inductor

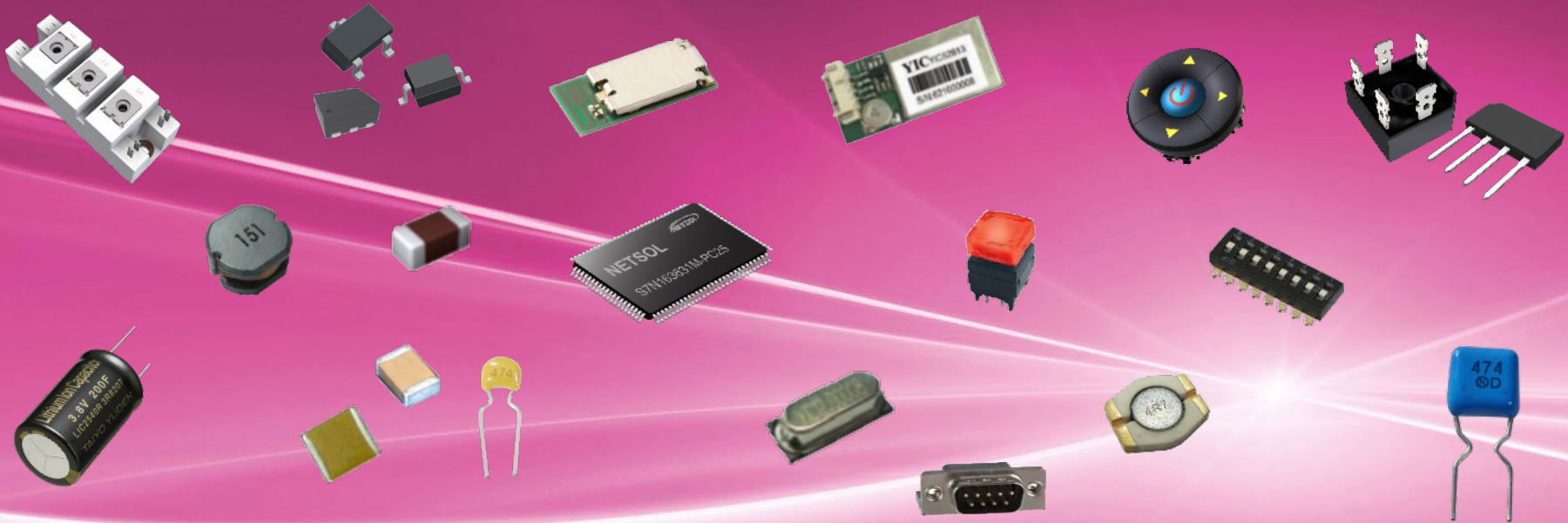


Wilhelm Haßenpflug  
*Managing Director*

phone: +49 5063 2712-0

mail: [hassenpflug@blume-elektronik.de](mailto:hassenpflug@blume-elektronik.de)

# Thank You !



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