TAIYO YUDEN

TAIYO YUDEN MCOIL[™] Series

TAIYO YUDEN's Power Inductor Line-Up



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The names of series noted in the text are excerpted from part numbers that indicate the types and characteristics of the products, and therefore are neither product names nor trademarks.



Issues/Solutions from the current situation

Issues High-Performance Compact Electronic Devices. power inductors ⇒ Small size, high current and high efficiency



Solution



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Solution – Multilayer Metal Power InductorsL□CNB1005EET Series

Ultra Small Metal Power Inductor for Miniaturization / Energy Saving



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-95% of the Area, -97% of the Volume*

Compared to Equivalent Ferrite Power Inductors



Solution – Metal Power Inductors L□CN(Multilayer)/L□EU(Wire-Wound) Series

Metal Power Inductors L CN(Multilayer) /L EU(Wire-Wound) Series

LCN series realized high-performance and miniaturization by combining magnetic materials and multilayer structure - the world first method L EU series realized high current and low DCR by improving metal materials in wirewound structure



Applications

Smartphones/Automotive/Industry/Memory/PCs

MCOIL[™] Series — Metal Power Inductors (Multilayer)

LSCN(MC) Series

Original Material



Particle bonding by oxide layer

High heat resistance High thermal conductivity Low loss iron-based magnetic material



Process Features

Multilayer Technology + Thermomechanical Technology

Applications

Smartphones/Wearable/ IoT/Automotive/Industry

Point

Reduce DCR

Reduce Volume

High Current

※ Compared to ferrite products of the same inductance

 ·CKP2012NR47M
 (ferrite products) Case Size(mm):2.0x1.25x1.0
 Inductance:0.47uH Isat(max):1.2A Rdc(max):0.080Ω

 ·LSCND1412FETR47ME
 (metal products) Case Size(mm):1.4x1.2x0.65
 Inductance:0.47uH Isat(max):3.6A Rdc(max):0.038Ω

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MCOIL[™] Series — Metal Power Inductors (Wire-Wound)

LSEU(ME) Series

Original Material



High density packing

Low loss iron-based magnetic material



Process Features

"Unique Molding Technology" + High-performance magnetic metal resin

Applications

Smartphones/Automotive Industry/Memory/PCs

Point

Reduce DCR

Low Core Loss



Comparison with metal products of the same size and inductance
 LSANB2520KKT2R2M (MA) Case Size(mm):2.5x2.0x1.0 Inductance:2.2uH Isat(max):1.5A Rdc(max):0.156Ω
 LSEUC2520KKT2R2M (ME) Case Size(mm):2.5x2.0x1.0 Inductance:2.2uH Isat(max):2.5A Rdc(max):0.076Ω

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