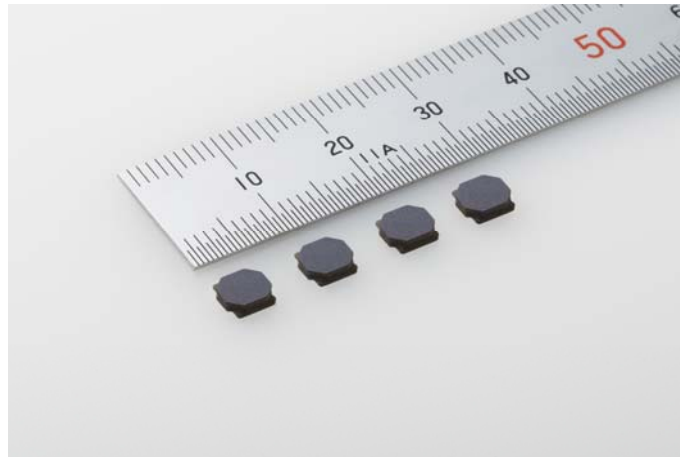


For immediate release

TAIYO YUDEN Announces the Commercialization of a 5mm Square Metal Power Inductor MCOIL™

Industry Leading DC Bias Characteristics are a Reality for Thin Mobile Devices



TOKYO, September 19, 2013 — TAIYO YUDEN announces the addition of a new 5mm square “MDPK5050” (4.9 x 4.9 x 1.4mm, the maximum height value) device to its metal core SMD power inductor MCOIL™ MD Series.

This product is a power inductor for choke coil applications aimed at the power circuits of thin mobile devices typified in tablet devices. This new innovation in power inductors achieves an industry leading DC bias characteristic of 3.5 A in its size class (inductance value of 4.7 μ H) made possible through the integration of TAIYO YUDEN’s proprietary metallic magnetic material technology and advanced process technology. (Note - survey conducted September 2013 by TAIYO YUDEN.)

Production will commence at TAIYO YUDEN (PHILIPPINES) from September 2013 onward at a production rate of 10 million units per month. The sample price is 100 yen per unit.

Technology Background

Performance targets for tablet devices has continually increased in the market and these performance target increases have particularly been driven through the installation of high-definition large-size screens. At the same time, the amount of current in power supply circuits is increasing rapidly. Simultaneously, in order to achieve thinner devices, there has been a strong demand for a smaller size and a lower profile electronic component used in such devices.

A common problem faced with the development of power inductors is the resulting DC bias characteristic decline associated with miniaturization which constricts large amounts of current flow. To address this phenomenon, TAIYO YUDEN has developed the metal power inductor MCOIL™ that makes use of a metallic magnetic material whose DC bias characteristic is improved significantly as compared to the conventional ferrite material. In addition to TAIYO YUDEN’s own material technology, the forming process has been further developed to realize a large amount of current flow that is almost 1.7 times as compared to TAIYO YUDEN’s conventional product “NRS5014”

(inductance value of 4.7 μ H and DC bias characteristic of 2050 mA) at the saturation current. TAIYO YUDEN has commercially released the 5mm square metal core SMD power inductor MCOIL™ MDPK5050, which has an industry leading DC bias characteristic and is not only compatible with larger currents but also has a small size and low profile.

TAIYO YUDEN remains committed to furthering our focus on the development of super high-end products having a small size and a low profile that can meet the market demands of thin mobile devices typified by tablet devices and smartphones and we will actively promote the product development of the metal power inductor MCOIL™.

* “MCOIL” is a registered trademark or a trademark of TAIYO YUDEN CO., LTD. in Japan and other countries.

■ Application

In choke coil applications for power supply circuits of thin mobile devices typified by tablet devices.

[Metal Core SMD Power Inductor MCOIL™ MD Series]

An example of Characteristics of the MDPK5050 Series

Part number	Nominal inductance [μ H]	DC resistance [Ω] (max)	Rated voltage [mA]	
			Saturation current	Temperature rise current
MDPK5050T4R7MM	4.7	0.102	3500	2500

* The lineup of the nominal inductance value ranges from 1 μ H to 10 μ H.