

For immediate release

Taiyo Yuden Introduces New, Low-Profile Power Inductors with Industry-Leading DC Bias Characteristics

Sizes 6010 and 5012 Added to “NR” Lineup of Wire-Wound Inductors

TOKYO, July 16 2009 — Taiyo Yuden Co., Ltd. announced today the release of two new wire-wound power inductors, the NRS6010 (6.0 x 6.0 mm, with a maximum height of 1.0 mm) and the NRS5012 (5.0 x 5.0 mm, with a maximum height of 1.2 mm). Both new products feature thinner designs and superior DC characteristics.

The NRS6010's rated current 1.0 A (DC bias allowed current at an inductance of 10 μ H), and the NRS5012's rated current 3.1 A (DC bias allowed current at an inductance of 2.2 μ H) can handle high currents, achieving the best DC bias characteristics in the industry. Designed for use as choke coils in DC-DC converters for slim, compact digital devices, the NRS6010 is ideal for LED backlighting for notebook and netbook PCs, while the even-smaller NRS5012 is a great match for devices such as hard disk drives smaller than 2.5 inches and compact digital still cameras. Taiyo Yuden expects its growing portfolio of high-quality products to meet today's diversifying customer requirements, especially satisfying the need for thinner power inductors 6 mm square or smaller.

The new inductors go into mass production in July 2009 at the Taiyo Yuden (Philippines), at a total production volume (for both products) of 10 million units per month. The prices for samples are both 30 yen per unit.

Technology Background

With compact, slimmer digital devices becoming more and more popular in recent years, the components inside these devices must also be smaller and thinner than ever. In particular, LED backlighting technology has been employed in notebook and netbook PCs in an effort to reduce the size and power consumption of such devices.

With ICs getting smaller and boasting higher processing capabilities, digital devices can provide higher performance and improved functionality. Meanwhile, however, the components inside these devices are required not only to be compact and thin but also able to handle high currents. Taiyo Yuden has optimized the core design and materials used in its acclaimed NR series of choke coils, a primary component in the DC-DC converters used as power supply circuits for such devices. Now, the company is proud to present the NRS6010 and NRS5012 with superior DC bias characteristics.

Taiyo Yuden will continue to develop new wire-wound power inductor products that precisely meet the needs of the market.

NRS6010 Lineup

Ordering code	Inductance [μ H]	Rdc [Ω]	Rated current max [A]	
			Saturation current	Temperature rise current
NRS6010T4R7N	4.7	0.165	1.30	1.40
NRS6010T6R8N	6.8	0.220	1.20	1.20
NRS6010T100M	10	0.270	1.00	1.10

NRS5012 Lineup

Ordering code	Inductance [μ H]	Rdc [Ω]	Rated current max [A]	
			Saturation current	Temperature rise current
NRS5012T1R0N	1.0	0.053	4.50	2.30
NRS5012T1R5N	1.5	0.070	3.80	2.20
NRS5012T2R2N	2.2	0.085	3.10	2.00
NRS5012T3R3N	3.3	0.160	2.40	1.45
NRS5012T4R7N	4.7	0.180	2.20	1.40
NRS5012T6R8M	6.8	0.260	1.70	1.10
NRS5012T100M	10	0.420	1.40	0.85
NRS5012T150M	15	0.670	1.20	0.64