

# Renco Electronics, Inc.

## Engineering Success Story

Nelson Garcia - Engineering Manager

Volume 2, Issue 3



In the previous issue of Renco Electronics' *Engineering Success Story* it was described how Renco Electronics' Design Engineering team was able to quickly assist a customer by developing a custom flyback transformer for a 60 Watt Quasi-Resonant power supply. In this installment of the *Engineering Success Story* a different type of customer need and the Renco Electronics' solution is discussed.

Renco Electronics has a broad offering of standard thru-hole and surface mount products designed for a variety of applications. This broad offering of products makes life easier for customers that are in urgent need of an equivalent part that perhaps Renco Electronics' competitors cannot provide within the needed time frame. As the economy begins to improve, the lead times for some electronic components are already increasing beyond 12 weeks. Renco Electronics works hard to maintain stock of over 95% of what is in Renco Electronics' standard catalog. The benefits of maintaining such a diverse quantity of stock of standard magnetic components is illustrated in the following Engineering Success Story.

On Tuesday, November 10<sup>th</sup> at 10:00 P.M. an e-mail from a Senior Engineer at a mid-sized customer was received by Renco Electronics' Design Engineer. The customer was in urgent need of an equivalent to a competitor's basic drum inductor that was used for filtering purposes in the customer's circuit. Renco Electronics' Design Engineer found a few options including the RL-8064-2,-3 and the RL-5480-3. These three parts were close equivalents to the competitor's part.



Fig. 1 RL-8064 Series

This information was sent via E-mail to the Senior Engineer on Tuesday night and on Wednesday morning, November 11<sup>th</sup> the rest of the details of the customer's inductor needs were learned.

The customer's Purchasing Manager informed Renco Electronics that they needed 5,000 pieces of an equivalent to the competitor's part, but the caveat was that they needed the parts by November 30<sup>th</sup>. Unfortunately, Renco Electronics did not have 5,000 pieces of one value that could be provided to the customer by November 30<sup>th</sup>. However, there were some options.

Renco Electronics' Design Engineer contacted the customer's Senior Engineer to determine the exact

electrical requirements of the inductor and discuss the available options. The RL-8064-2 and -3 sizes are direct equivalents to the competitor part, but a bit of overkill. The RL-5480-3 is a drop in Mechanical replacement, but the Irms current is not as high as the RL-8064-2,-3, and the competitor's part. This will result in higher temperature rise, but after having a lengthy technical discussion regarding the pros and cons of using the RL-5480-3 inductor, the customer asked for samples to evaluate immediately. A few samples of the particular RL-5480-3 part along with a few RL-5480 designer kits were sent to the customer overnight.

The customer received the RL-5480-3 samples and designer kits on Thursday November 12<sup>th</sup>. After a quick review of the samples and internal discussions with the Senior Engineer's team an order was placed, on Friday November 13<sup>th</sup>, for 4,007 pieces of the RL-5480-3, 500 pieces of the RL-8064-2, and 495 pieces of the RL-8064-3. All three parts have the same inductance value and will drop in to the customer's footprint. More importantly the customer will receive the parts before November 30<sup>th</sup>.



Fig. 2 RL-5480 Series

**"Precisely the best coils and transformers"**

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The above scenario, which took just 4 days to complete, happens quite often and Renco Electronics' Design Engineering Team is happy to assist customers with finding equivalents to parts that may have long lead times or are hard to find. In addition, Renco Electronics' Design Engineering Team will walk the customers through the various technical questions that may arise while determining appropriate equivalents to competitor parts. Furthermore, with Renco Electronics' extensive stock

availability your diverse component needs will be easily met.

If you have just begun working on a new or mature power supply design and are in need of an equivalent to an inductor with long lead times or a custom designed transformer, contact Renco Electronics' highly skilled Design Engineering team to discuss your standard and custom magnetics needs. Renco Electronics will work with you to find the part you need.

**Engineering Hotline: 1-800-645-5828**

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