

# HIGH-VOLTAGE TRIGGER TRANSFORMER

## MODEL NO. HTTR0157

Hyacinth Technology, Inc.'s HTTR0157 high-voltage trigger transformer was designed for consistent, reliable triggering of spark-gaps. The compact, low stray capacitance design enhances output rise times for accurate timing and low jitter performance.

The HTTR0157 is intended to be driven by a capacitive discharge circuit switched with an SCR or a FET. Depending on the parameters of the drive circuit, a wide range of peak output voltages and output waveform characteristics may be achieved with the HTTR0157. Table 1 below describes recommended operating parameters.



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**Table 1. General Specifications and Recommended Operating Conditions**

<b>Primary Inductance</b>	<b>1.1 <math>\mu</math>H</b>
<b>Secondary Inductance</b>	<b>4.24 mH</b>
<b>Maximum peak input voltage</b>	<b>350V</b>
<b>Maximum (open circuit) peak output voltage</b>	<b>20 kV</b>
<b>Recommended spark gap firing voltage</b>	<b>5 kV to 15 kV</b>
<b>Maximum input energy per pulse*</b>	<b>0.01 joule</b>
<b>Maximum pulse rate at 0.01 joule/pulse*</b>	<b>100 Hz</b>
<b>Operating temperature range</b>	<b>-10°C to 70°C</b>

**\*open circuit or with spark gap firing voltages above 5 kV**

Figure 1 shows an actual open circuit output waveform of an HTTR0157 driven by switching a 0.2  $\mu$ F capacitor charged to 300 V.

The HTTR0157 optionally may be packaged with matching drive circuits (see Figure 3 for examples). Additionally, Hyacinth Technology, Inc. could design and build customized transformers for your application. Please contact us with your specific requirements or for questions regarding the use of the HTTR0157 as well as other Hyacinth Technology, Inc. products.

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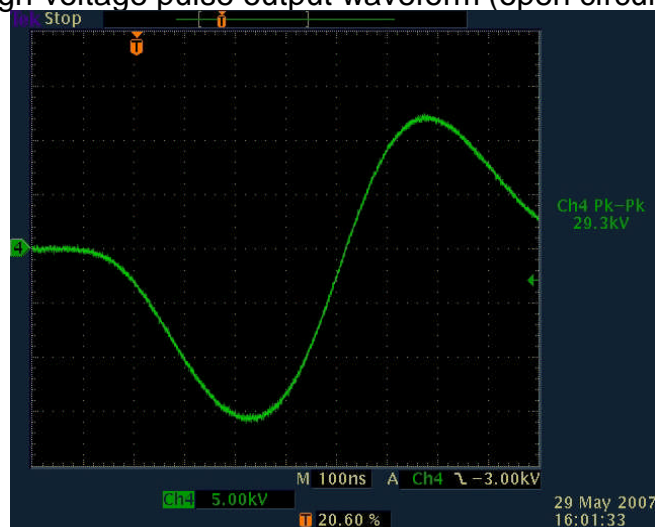
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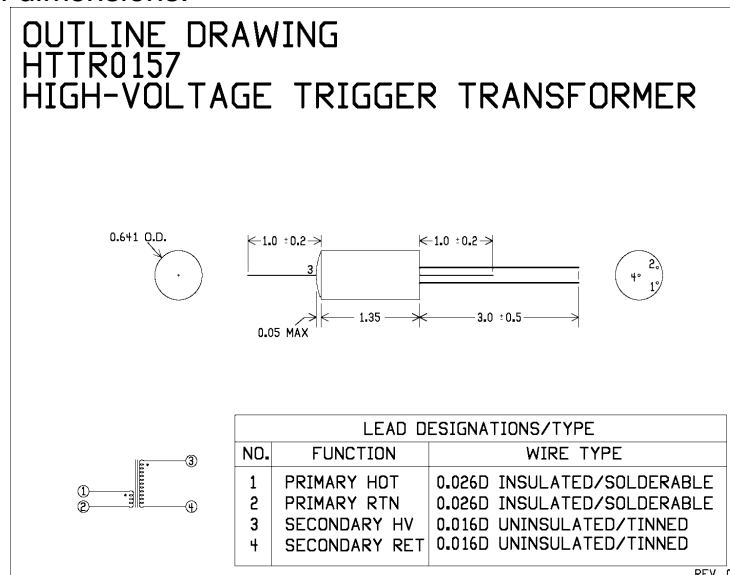
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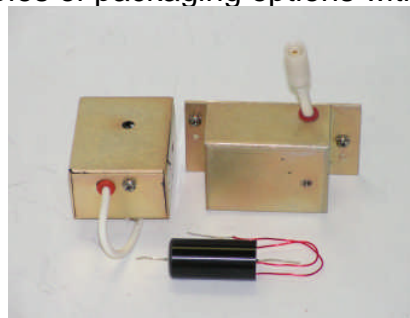
**Figure 1.** Example of high-voltage pulse output waveform (open circuit).



**Figure 2.** Mechanical dimensions.



**Figure 3.** HTTR0157 and examples of packaging options with integrated trigger circuit.



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