

The TGRTI-V6LF series of reinforced insulation transformers provides the isolation and voltage outputs required for low cost DC/DC converter circuits. Designed specifically for the Texas Instruments™ ISO721 and ISO722 high-speed digital isolator applications. UL60950, IEC60950, EN60950 and DEMKO recognized. Fully ROHS compliant and "Green". Other packages are available with isolation voltages ranging from 500 to 4.5kVrms.



V6 SMD Package



Circuit Diagram



Pri Pins: 1-3  
 Operating Temp: -40 to +85°C

Electrical Specifications @ 25°C

| Part Number   | Turns Ratio +/-3% | OCL Typ. | PRI DCR      | ET Constant     | Isolation |
|---------------|-------------------|----------|--------------|-----------------|-----------|
| SMD           | PRI : SEC         | $\mu$ H  | $\Omega$ Max | V- $\mu$ s Min. | Vrms      |
| TGRTI-310V6LF | 1CT:0.5CT         | 500      | 0.8          | 18              | 3,000     |
| TGRTI-320V6LF | 1CT:0.375CT       | 500      | 0.8          | 18              | 3,000     |
| TGRTI-330V6LF | 1CT:0.75CT        | 500      | 0.8          | 18              | 3,000     |
| TGRTI-340V6LF | 1CT:1.33CT        | 800      | 0.9          | 22              | 3,000     |
| TGRTI-350V6LF | 1CT:1CT           | 800      | 0.9          | 22              | 3,000     |

The TGRTI-NA series, reinforced insulation, 6 pin transformers provide the isolation and voltage outputs required for low cost DC/DC converter circuits. Designed specifically for the high voltage isolation DC/DC converters in Texas Instruments ISO721 and ISO722 high-speed digital isolator applications. UL60950, IEC60950, EN60950 and DEMKO recognized. Other packages are available with isolation voltages ranging from 500 to 4.5kVrms.



### NA SMD Package



### Circuit Diagram



NOT RECOMMENDED FOR NEW DESIGNS

### Electrical Specifications @ 25°C

Operating Temp: -40 to +85°C  
Pri Pins: 1-3  
Pri OCL: 960µH typ.  
Pri DCR: 0.8  
E T Constant: 15 V-µs min.

### Patented Construction

US Pat Nbrs: 5,656,985 6,297,721 B1  
6,297,720 B1 6,320,489 B1  
6,344,785 B1 6,662,431 B1

| Part Number<br>SMD | Turns Ratio +/-3%<br>PRI : SEC | Isolation<br>Vrms |
|--------------------|--------------------------------|-------------------|
| TGRTI-310NA        | 1CT:0.5CT                      | 3,000             |
| TGRTI -320NA       | 1CT:0.375CT                    | 3,000             |
| TGRTI -330NA       | 1CT:0.75CT                     | 3,000             |
| TGRTI -340NA       | 1CT:1.33CT                     | 3,000             |
| TGRTI -350NA       | 1CT:1CT                        | 3,000             |

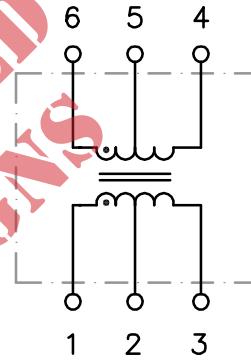
The TGRTI-NA series, reinforced insulation, 6 pin transformers provide the isolation and voltage outputs required for low cost DC/DC converter circuits. Designed specifically for the high voltage isolation DC/DC converters in Texas Instruments ISO721 and ISO722 high-speed digital isolator applications. UL60950, IEC60950, EN60950 and DEMKO recognized. Other packages are available with isolation voltages ranging from 500 to 4.5kVrms.



### NA SMD Package



### Circuit Diagram



NOT RECOMMENDED FOR NEW DESIGNS

### Electrical Specifications @ 25°C

Operating Temp: -40 to +85°C  
 Pri Pins: 1-3  
 Pri OCL: 960µH typ.  
 Pri DCR: 0.8  
 E T Constant: 11 V-µs min.

### Patented Construction

US Pat Nbrs: 5,656,985 6,297,721 B1  
 6,297,720 B1 6,320,489 B1  
 6,344,785 B1 6,662,431 B1

| Part Number<br>SMD | Turns Ratio +/-3%<br>PRI : SEC | Isolation<br>Vrms |
|--------------------|--------------------------------|-------------------|
| TGRTI-310NARL      | 1CT:0.5CT                      | 3,000             |
| TGRTI -320NARL     | 1CT:0.375CT                    | 3,000             |
| TGRTI -330NARL     | 1CT:0.75CT                     | 3,000             |
| TGRTI -340NARL     | 1CT:1.33CT                     | 3,000             |
| TGRTI -350NARL     | 1CT:1CT                        | 3,000             |

## Typical Applications

### Isolated 3.3-V CAN Interface



## Typical Applications

### Isolated 3.3-V 485 Half-Duplex Interface

