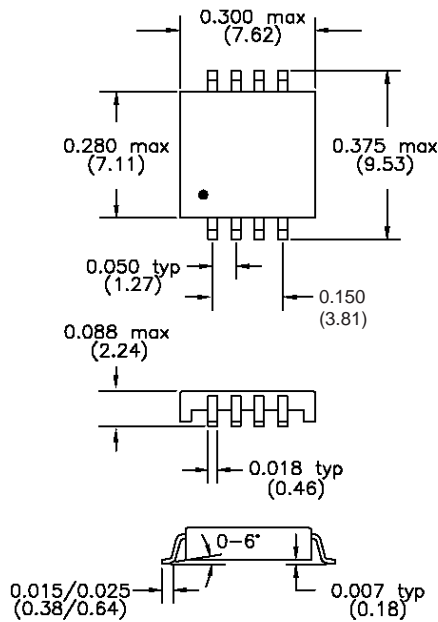


## PCMCIA DC/DC Converter Isolation Modules

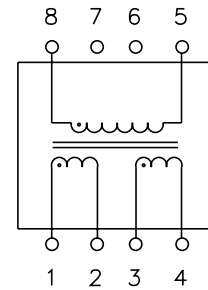
The TGM-P3 series of 8 pin transformers provide the isolation and voltage outputs required for small, low cost DC/DC converter circuits. UL1950, IEC950 and EN60950 recognized. Designed specifically for use with the Maxim™ MAX845 monolithic oscillator/power driver with 3.3V or 5V power source. DIL and SMD packages are also available with isolation voltages up to 4.5KVrms. For more information, pertaining to the MAX845 please contact Maxim at (408) 737-7600. Maxim is a registered trademark of Maxim Integrated Products.

**P3 Package**

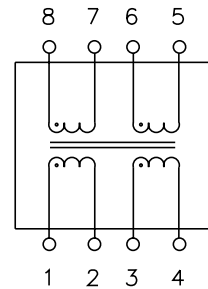


DIMENSIONS : Inch(mm)  
 CO-PLANARITY : 0.004(0.10)

**Circuit Diagram A**



**Circuit Diagram B**



**Patented Construction, Pat. No. 5,656,985**

Electrical Specifications @ 25°C

Operating Temp: -40 to +85°C

Pri Pins: 1-2 & 3-4

Pri OCL: 240µH typ

Pri DCR: 0.6Ω max

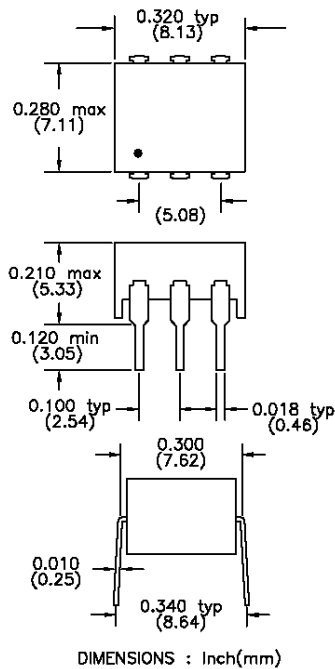
ET Constant: 5.5V-µs min

| Part Number | Circuit | Turns Ratio (±3%)<br>PRI:SEC | Cw/w<br>pf max. | Pri LL<br>µH typ. | Isolation<br>Vrms |
|-------------|---------|------------------------------|-----------------|-------------------|-------------------|
| TGM-010P3   | A       | 1:1:1                        | 10              | 0.20              | 500               |
| TGM-020P3   | A       | 4:4:3                        | 10              | 0.20              | 500               |
| TGM-030P3   | A       | 2:2:3                        | 12              | 0.40              | 500               |
| TGM-040P3   | B       | 1:1:1.3:1.3                  | 12              | 0.40              | 500               |
| TGM-210P3   | A       | 1:1:1                        | 10              | 0.20              | 1,500             |

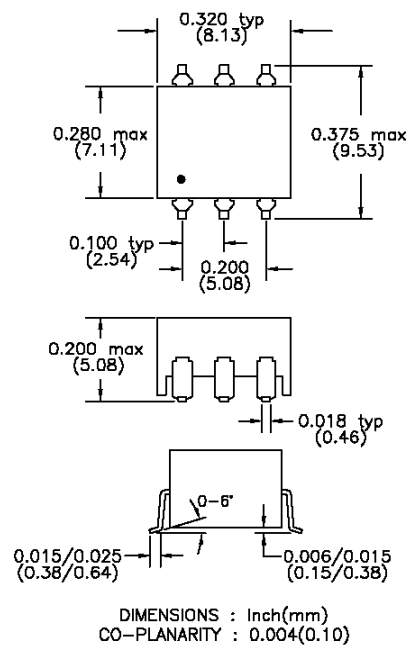
## 6 Pin, 2KVrms DC/DC Converter Isolation Modules

The TGM-NS and TDM-NE, 6 pin transformers provide the isolation and voltage outputs required for small, low cost DC/DC converter circuits. UL1950, IEC950 and EN60950 recognized. Designed specifically for use with the Maxim™ MAX253 and MAX845 monolithic oscillator/power drivers with 3.3V or 5V power source. Other packages are available with isolation voltages up to 4.5KVrms. For more information, pertaining to the MAX845 please contact Maxim at (408) 737-7600. Maxim is a registered trademark of Maxim Integrated Products.

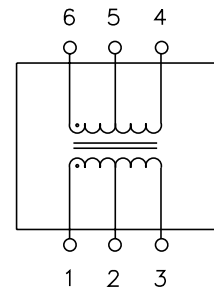
**NE Package**



**NS Package**



**Circuit Diagram**



**Patented Construction, Pat. No. 5,656,985**

Electrical Specifications @ 25°C

Operating Temp: -40 to +85°C  
 Pri Pins: 1-3  
 Pri OCL: 960µH typ

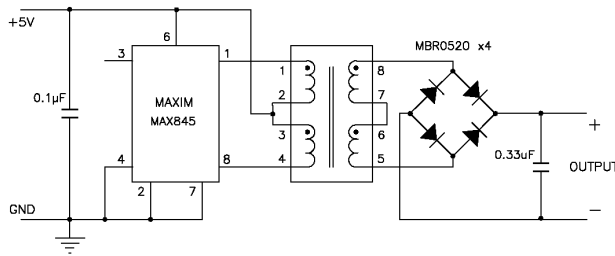
Pri DCR: 0.8Ω max  
 ET Constant: 11 V-µs min

| SMD       | Part Number | DIL | Turns Ratio (±3%)<br>PRI:SEC | Pri LL<br>µH typ. | Isolation<br>Vrms |
|-----------|-------------|-----|------------------------------|-------------------|-------------------|
| TGM-210NS | TDM-210NE   |     | 2CT:1CT                      | 0.40              | 2,000             |
| TGM-220NS | TDM-220NE   |     | 8CT:3CT                      | 0.40              | 2,000             |
| TGM-230NS | TDM-230NE   |     | 4CT:3CT                      | 0.40              | 2,000             |
| TGM-240NS | TDM-240NE   |     | 3CT:4CT                      | 0.40              | 2,000             |
| TGM-250NS | TDM-250NE   |     | 1CT:1CT                      | 0.40              | 2,000             |
| TGM-280NS | TDM-280NE   |     | 3CT:8CT                      | 0.40              | 2,000             |

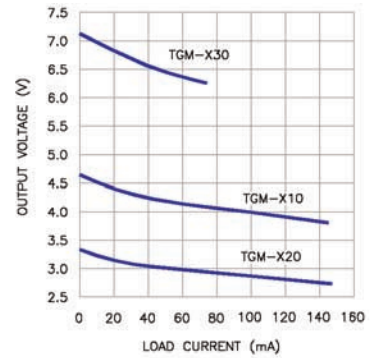
## Maxim MAX253/MAX845 DC/DC Converter Application Note

The TDM and TGM series of transformers have been designed specifically for use with the Maxim™ MAX253 and MAX845 monolithic oscillator/power driver with 3.3V or 5V power source. Multiple output voltages can be achieved depending on the diode circuit and transformer selected. For more information, pertaining to the MAX253/MAX845 please contact Maxim at (408) 737-7600. Maxim is a registered trademark of Maxim Integrated Products.

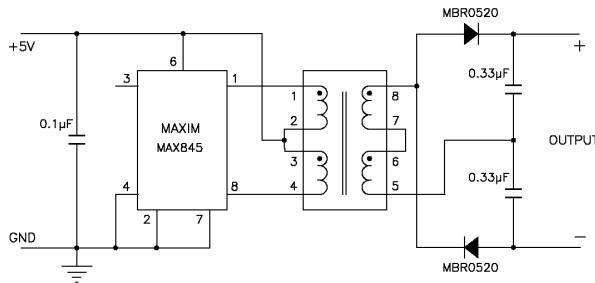
### Bridge Rectifier Circuit



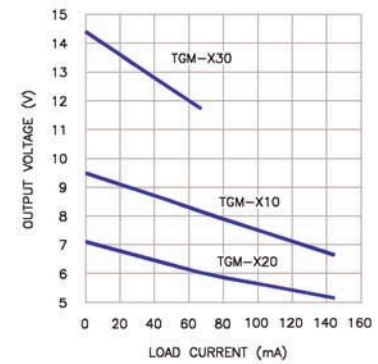
### Output Voltages



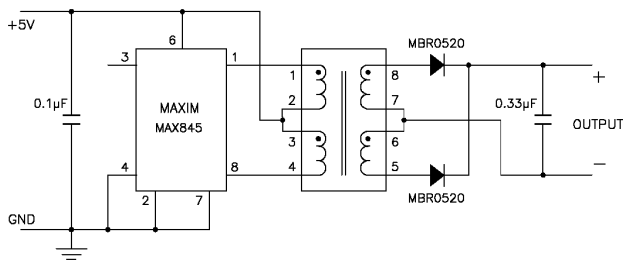
### Doubler Circuit



### Output Voltages



### Full Wave Rectifier Circuit



### Output Voltages

