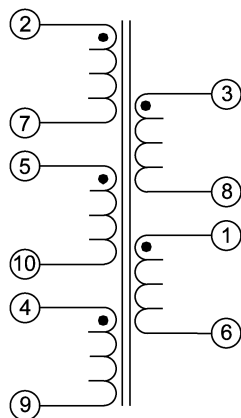
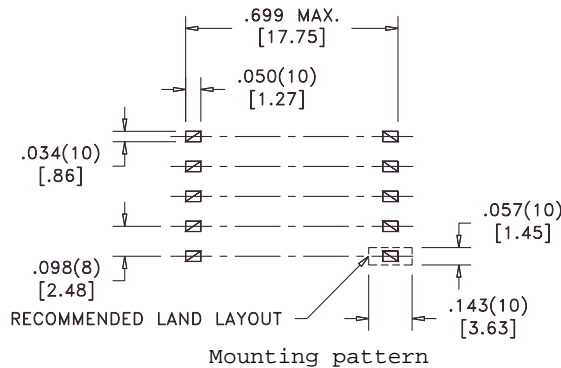
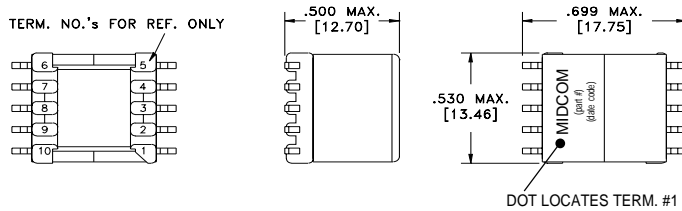


# Gemini 13 Transformers

## SMD



### NOTES:

- 1 Inductance measured at 10kHz and 100mV. Tolerance is +/- 15%.
- 2 Amount of DC current that will result in approximately a 15% decrease in inductance.
- 3 RMS current rating for each single wind based on 250 circular mils per amp.
- 4 Maximum breakdown voltage between any 2 windings is 500VDC. Safety critical or high voltage designs are available upon request as a customized product.
- 5 Turns ratio 1:1:1:1:1 +/- 1%.

### Features

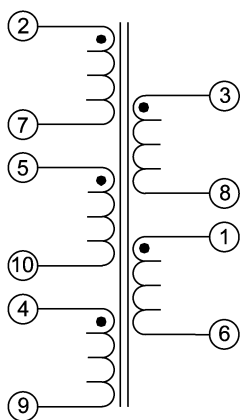
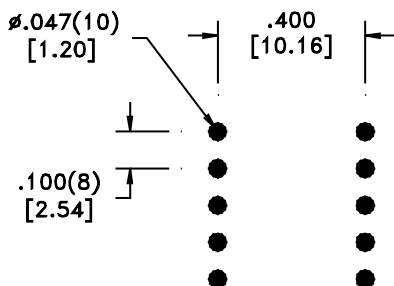
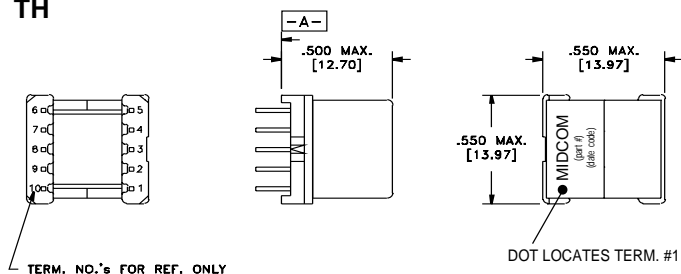
- Economic, reliable SMD or TH transformers or inductors
- Combine windings in series or parallel to meet your specific application
- Core geometry provides low radiated noise
- Manufactured with UL94 V-O materials
- SMD products are pick and place compatible
- Compatible with solder reflow process to 240° C
- Storage temperature from -50° to 155° C
- Power range: Typically 8 watts and below
- Frequency range up to 500kHz

### Applications

- Ideal for use as inductors or transformers in DC/DC converters for the following topologies:
  - Buck/Boost
  - Chokes
  - Filters
  - Coupled inductors
  - Flyback
  - Push-Pull
  - SEPIC
  - Cuk
  - Forward converters
  - Half/Full bridge

## Gemini 13 Transformers (continued)

TH



P/N SMD	P/N TH	$L_{Base}^1$ uH	$I_{sat}_{Base}^2$ mA	$I_{rms}_{Base}^3$ mA	DCR Max per wind ohms	Isolation between each wind <sup>4</sup> VDC
31043R	31056	4.7	3000	250	0.200	500
31044R	31057	7.1	2000	250	0.200	500
31045R	31058	11.5	1000	250	0.200	500
31046R	31059	200 min	50	250	0.200	500

### Environmental Specifications

- Operating temperature range:  
-40°C to +85°C
- Storage temperature range:  
-50°C to +125°C

### Packaging

- SMD parts packaged in 24/32 mm embossed carrier tape per EIA-481-3  
• 200 pieces per 13" reel
- TH parts packaged in trays  
• 50 per tray/650 per box