

# GIGABIT ETHERNET MAGNETICS

## Single Port Transformer Modules



LM00300

- Designed for use with 10/100/1000Base-T transceiver ICs
- Maximized for full duplex applications
- IR reflow rating at 225° C peak
- Supports four pairs of category 5 UTP cable
- Compliant with IEEE 802.3ab
- 350µH OCL with 8mA bias applied from 0° C to 70° C

### ELECTRICAL SPECIFICATIONS AT 25° C

| Part Number  | Insertion Loss<br>dB max | Return Loss<br>dB min |                           | Common to Common<br>Mode Rejection<br>dB min | Crosstalk<br>dB min       | Hipot<br>Vrms min |
|--------------|--------------------------|-----------------------|---------------------------|----------------------------------------------|---------------------------|-------------------|
|              | 0.1MHz<br>to 100MHz      | 0.5MHz<br>to 40MHz    | 40MHz<br>to 100MHz        | 100KHz to 100MHz                             |                           |                   |
| S558-5999-M8 | -1.0                     | -18                   | 12 - 20 log<br>(f/80 MHz) | -30                                          | 33 - 20 log<br>(f/50MHz)  | 1500              |
| S558-5999-M9 | -1.0                     | -18                   | 12 - 20 log<br>(f/80 MHz) | -30                                          | 33 - 20 log<br>(f/50MHz)  | 1500              |
| S558-5999-P3 | -1.0                     | -18                   | 12 - 20 log<br>(f/80 MHz) | -30                                          | 33 - 20 log<br>(f/50MHz)  | 1500              |
| S558-5999-T3 | -1.0                     | -18                   | 12 - 20 log<br>(f/80 MHz) | -30                                          | 33 - 20 log<br>(f/100MHz) | 1500              |
| S558-5999-T4 | -1.0                     | -18                   | 12 - 20 log<br>(f/80 MHz) | -30                                          | 33 - 20 log<br>(f/100MHz) | 1500              |

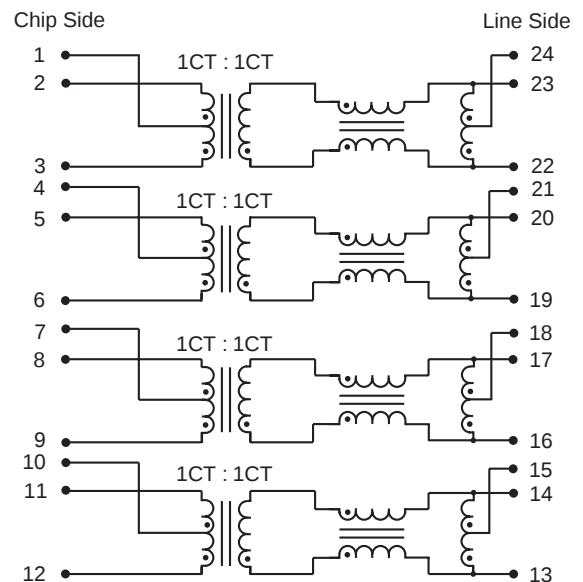
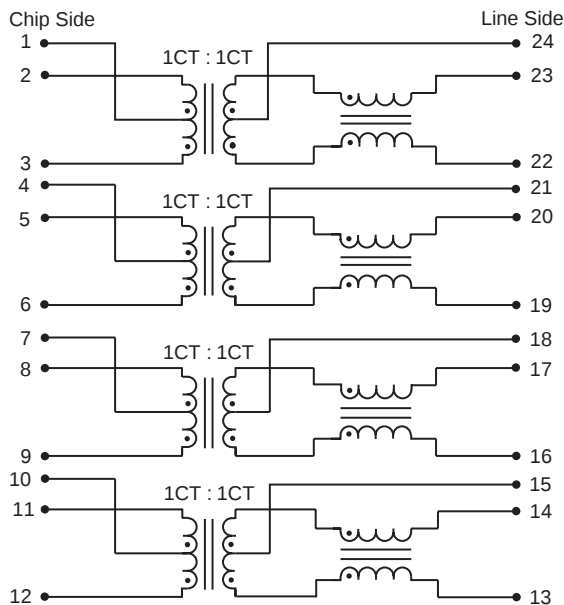
To select part number based on transceiver IC compatability, please contact Bel.

### SCHEMATICS

**S558-5999-M8 S558-5999-M9**

**S558-5999-T4**

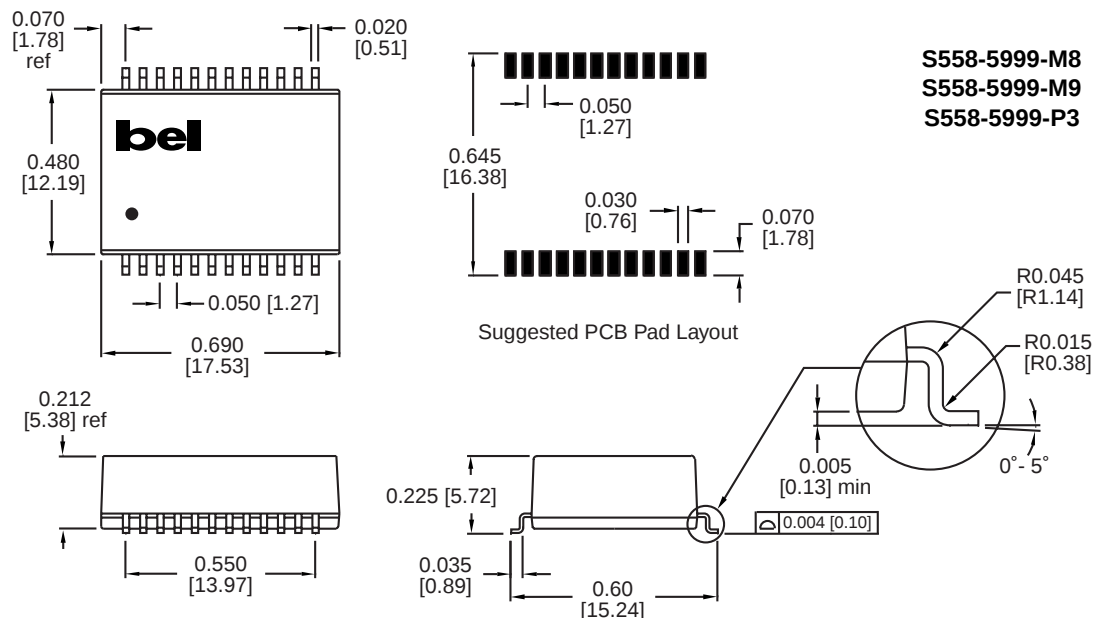
**S558-5999-P3 S558-5999-T3**



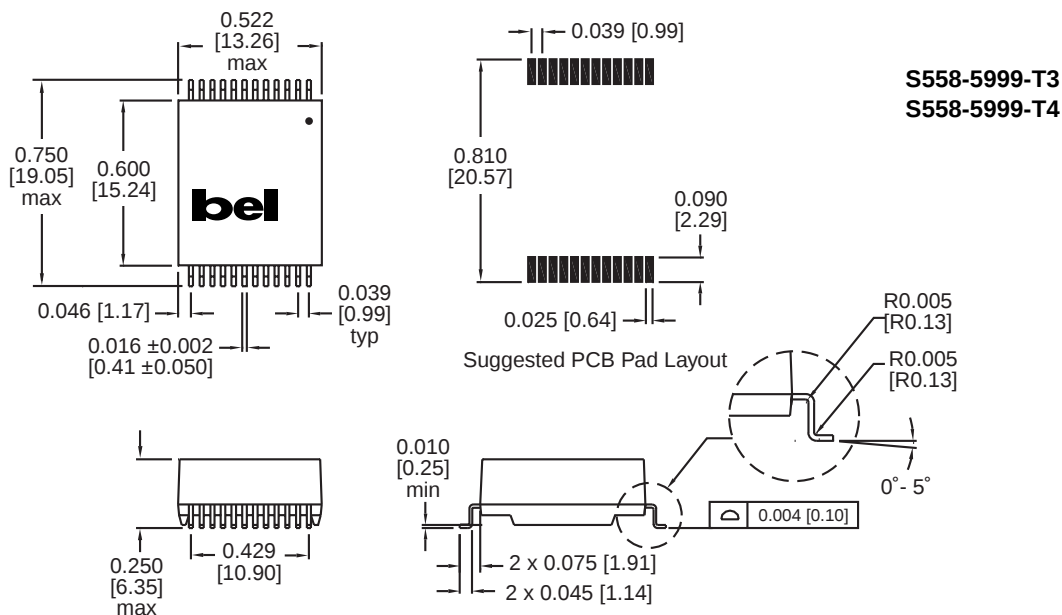
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### MECHANICALS



Dimensions are in inches [millimeters].  
Standard dimension tolerance is  $\pm 0.005$  [0.13] unless otherwise noted.



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