

# 10/100BASE-T LAN MAGNETICS

## Single Port Transformer Modules



LM00408

- Meets all IEEE 802.3 standards including 350μH with 8mA bias
- Operating temperature 0° to 70° C
- Low profile, surface mount packaging rated to 225° C peak IR reflow temperature
- Designed for use with a variety of 10/100 transceiver ICs
- Minimum interwinding breakdown voltage of 1500 Vrms

### ELECTRICAL SPECIFICATIONS AT 25° C

| Part Number  | Insertion Loss<br>dB max | Return Loss<br>dB min |                   |                   |                  | Common to<br>Differential<br>Mode<br>Rejection<br>dB min | Common to<br>Common<br>Mode<br>Rejection<br>dB min | Crosstalk<br>dB min |       |       |        |
|--------------|--------------------------|-----------------------|-------------------|-------------------|------------------|----------------------------------------------------------|----------------------------------------------------|---------------------|-------|-------|--------|
|              | 100kHz to<br>100MHz      | 100kHz to<br>30MHz    | 30MHz to<br>60MHz | 60MHz to<br>80MHz | 100kHz to 100MHz |                                                          |                                                    | 1MHz                | 30MHz | 60MHz | 100MHz |
| S558-5999-30 | -1.0                     | -20                   | -19               | -13               | -40              | -30                                                      |                                                    | -65                 | -55   | -45   | -35    |
| S558-5999-36 | -1.1                     | -20                   | -19               | -13               | -40              | -30                                                      |                                                    | -60                 | -50   | -40   | -35    |
| S558-5999-39 | -1.0                     | -20                   | -19               | -13               | -40              | -30                                                      |                                                    | -65                 | -55   | -45   | -35    |
| S558-5999-42 | -1.0                     | -20                   | -19               | -12               | -40              | -30                                                      |                                                    | -60                 | -50   | -40   | -35    |
| S558-5999-46 | -1.0                     | -20                   | -19               | -13               | -40              | -30                                                      |                                                    | -65                 | -55   | -45   | -35    |
| S558-5999-90 | -1.0                     | -20                   | -19               | -12               | -40              | -30                                                      |                                                    | -60                 | -50   | -40   | -35    |
| S558-5999-95 | -1.0                     | -20                   | -19               | -13               | -40              | -30                                                      |                                                    | -65                 | -55   | -45   | -35    |
| S558-5999-K7 | -1.0                     | -18                   | -19               | -12               | -40              | -30                                                      |                                                    | -65                 | -55   | -43   | -38    |

| Part Number  | Turns Ratio |           |
|--------------|-------------|-----------|
|              | TX          | RX        |
| S558-5999-30 | 1CT : 1CT   | 1CT : 1CT |
| S558-5999-36 | 1 : 2 : 2CT | 1CT : 1CT |
| S558-5999-39 | 1CT : 1CT   | 1CT : 1CT |
| S558-5999-42 | 1CT : 1CT   | 1CT : 1CT |

| Part Number  | Turns Ratio |           |
|--------------|-------------|-----------|
|              | TX          | RX        |
| S558-5999-46 | 1CT : 1CT   | 1CT : 1CT |
| S558-5999-90 | 1CT : 1CT   | 1CT : 1CT |
| S558-5999-95 | 1CT : 1CT   | 1CT : 1CT |
| S558-5999-K7 | 1CT : 1CT   | 1CT : 1CT |

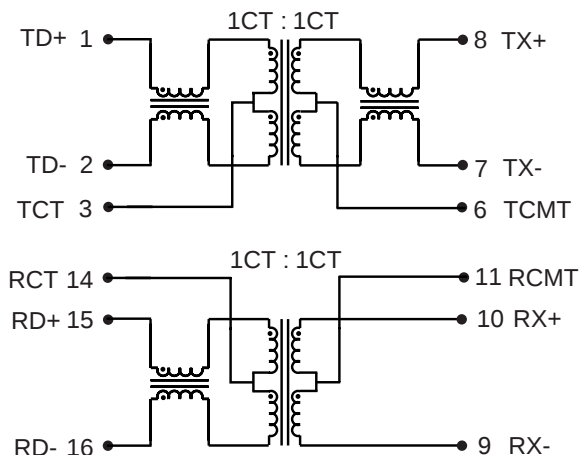
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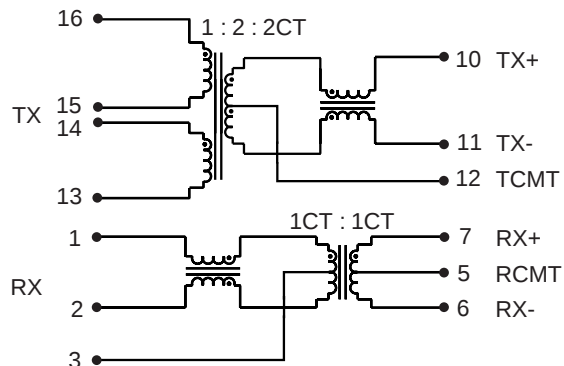
### Single Port Transformer Modules

#### SCHEMATICS

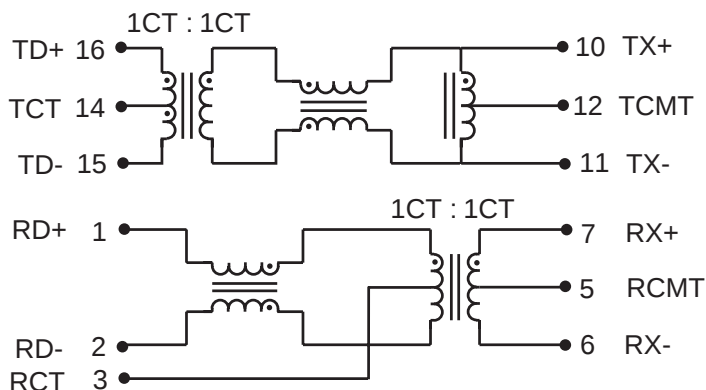
S558-5999-30  
S558-5999-42



S558-5999-36



S558-5999-39  
S558-5999-46  
S558-5999-95  
S558-5999-K7



# 10/100BASE-T LAN MAGNETICS

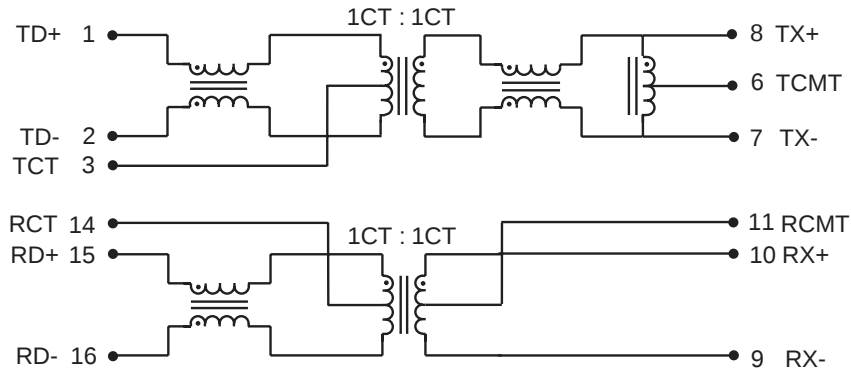
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LM00408

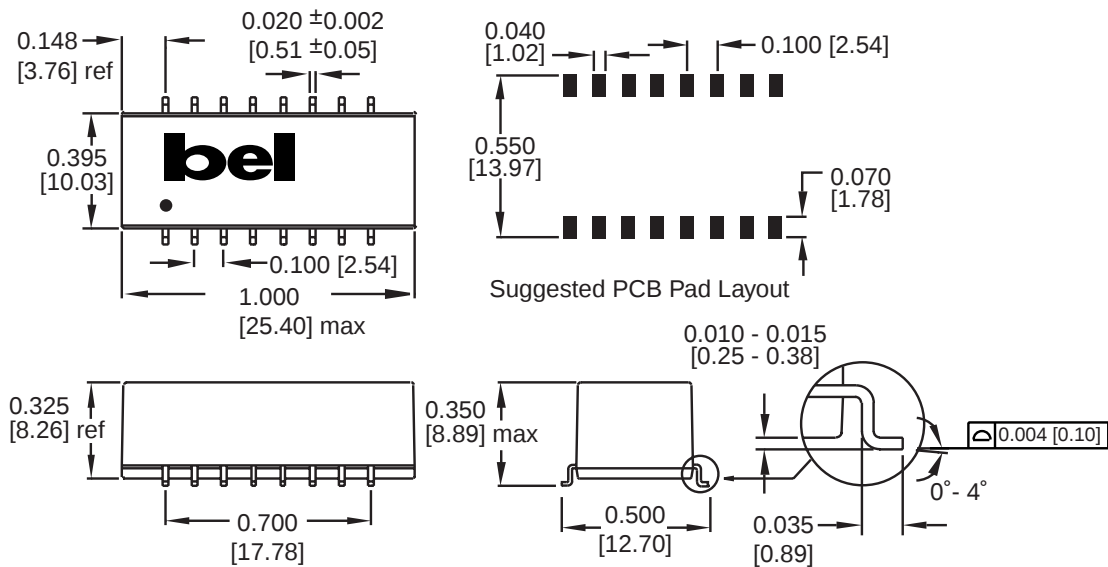
### SCHEMATICS

S558-5999-90



### MECHANICALS

S558-5999-30  
S558-5999-36  
S558-5999-39



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

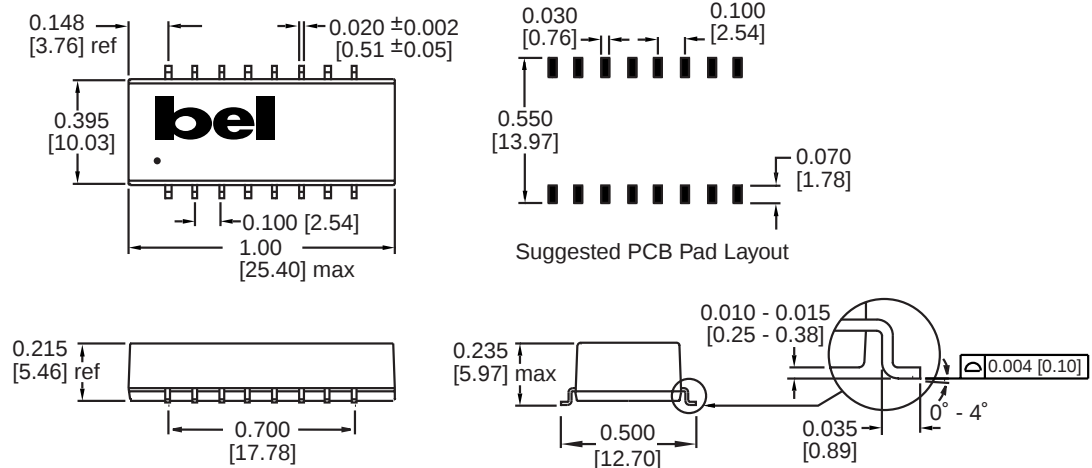
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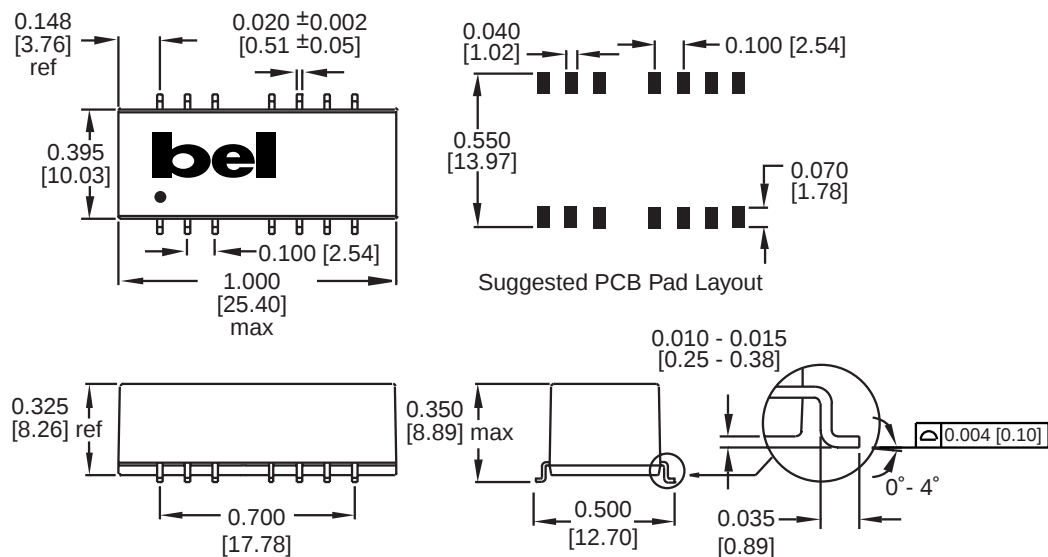
### MECHANICALS

S558-5999-42  
S558-5999-46  
S558-5999-90  
S558-5999-K7



Dimensions are in inches [millimeters].  
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S558-5999-95



Dimensions are in inches [millimeters].  
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