

# 10/100BASE-T LAN MAGNETICS

## Extended Temperature Transformer Modules

LM00412

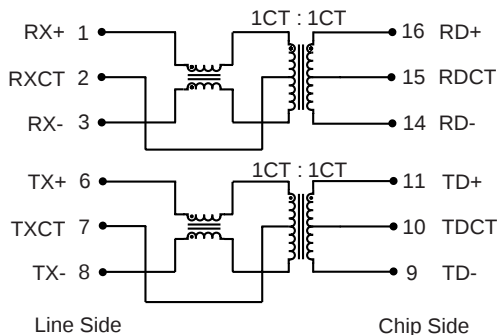
- Meets all IEEE 802.3 standards including 350μH with 8mA bias
- Low profile, surface mount packaging rated to 225° C peak IR reflow temperature
- Operating temperature -40° to +85° C
- Minimum interwinding breakdown voltage of 1500 Vrms

### ELECTRICAL SPECIFICATIONS AT 25° C

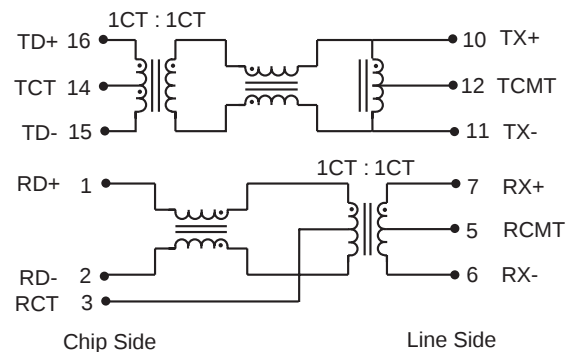
| Part Number  | Insertion Loss<br>dB max | Return Loss<br>dB min |                       |                |                  | Common to Differential<br>Mode Rejection<br>dB min | Common to Common<br>Mode Rejection<br>dB min | Crosstalk<br>dB min |       |       |        |
|--------------|--------------------------|-----------------------|-----------------------|----------------|------------------|----------------------------------------------------|----------------------------------------------|---------------------|-------|-------|--------|
|              | 100kHz to 100MHz         | 100kHz to 30MHz       | 30MHz to 60MHz        | 60MHz to 80MHz | 100kHz to 100MHz | 100kHz to 100MHz                                   | 100kHz to 100MHz                             | 1MHz                | 30MHz | 60MHz | 100MHz |
| S558-5999-T5 | -1.0                     | -18                   | 18 - 20 log (f/30MHz) | -12            | -40              | -30                                                | -65                                          | -55                 | -45   | -35   | -35    |
| S558-5999-U5 | -1.0                     | -18                   | 18 - 20 log (f/30MHz) | -12            | -40              | -30                                                | -65                                          | -55                 | -45   | -35   | -35    |
| S558-5999-Z5 | -1.0                     | -18                   | 18 - 20 log (f/30MHz) | -12            | -40              | -30                                                | -65                                          | -55                 | -45   | -35   | -35    |
| S558-5999-Z6 | -1.0                     | -18                   | 18 - 20 log (f/30MHz) | -12            | -40              | -30                                                | -65                                          | -55                 | -45   | -35   | -35    |

### SCHEMATICS

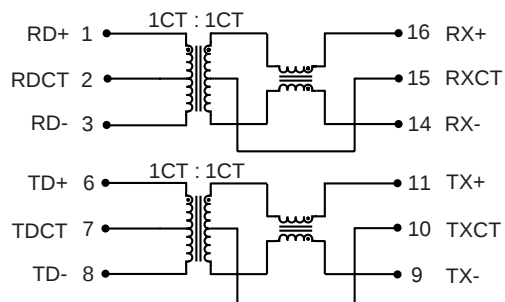
S558-5999-T5



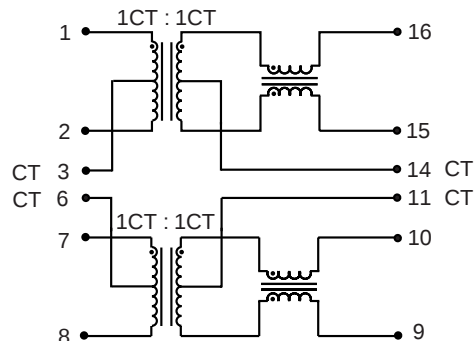
S558-5999-U5



S558-5999-Z5



S558-5999-Z6 (Auto MDIX)

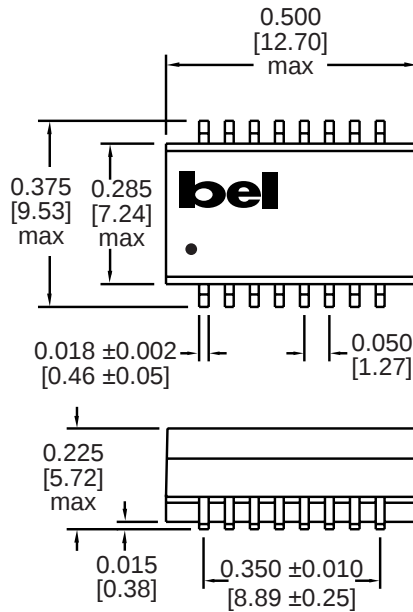


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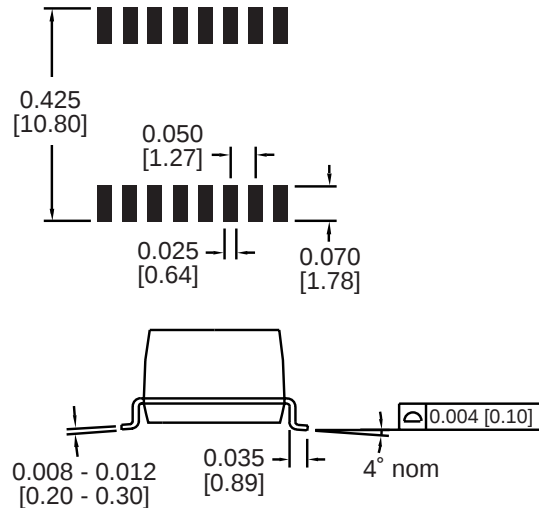
LM00412

#### MECHANICALS

S558-5999-T5  
S558-5999-Z5  
S558-5999-Z6



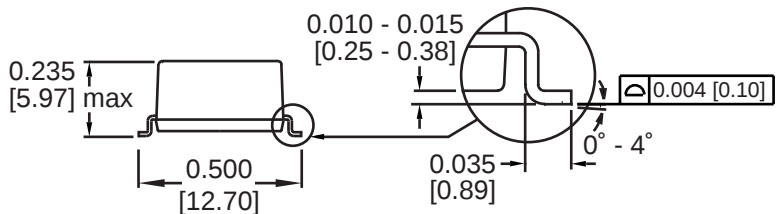
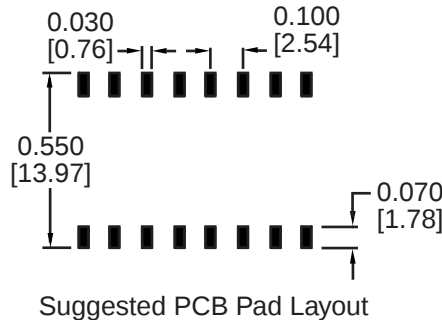
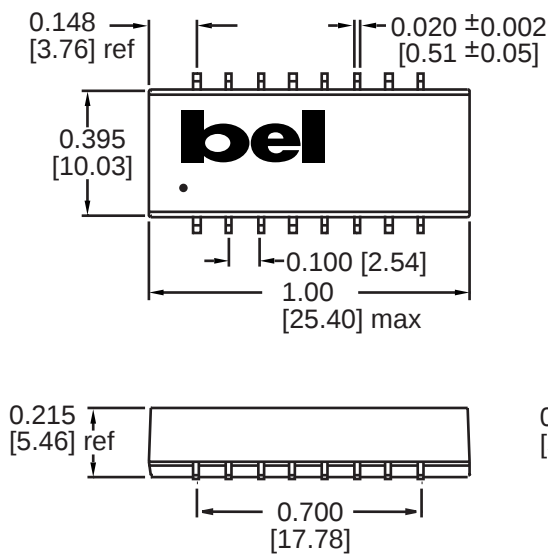
Suggested PCB Pad Layout



Dimensions are in inches [millimeters].

Standard dimension tolerance is  $\pm 0.005$  [0.13] unless otherwise noted.

S558-5999-U5



Dimensions are in inches [millimeters].

Standard dimension tolerance is  $\pm 0.005$  [0.13] unless otherwise noted.

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