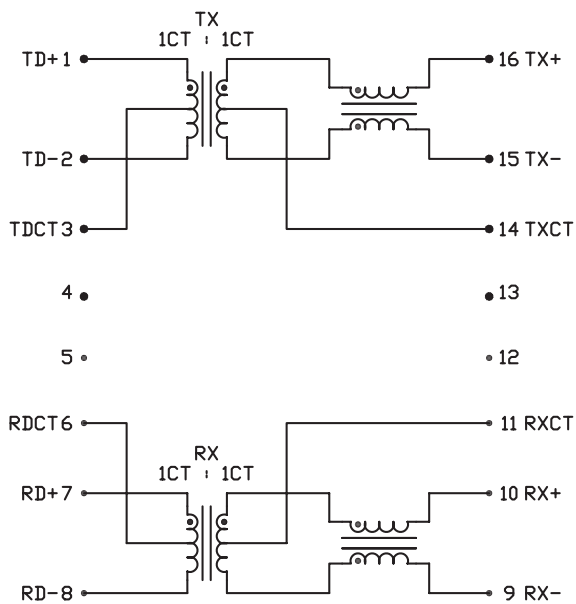


## 10/100BASE-T LAN MAGNETICS

### S558-5999-W2-F Transformer Module for Auto MDIX



SCHEMATIC



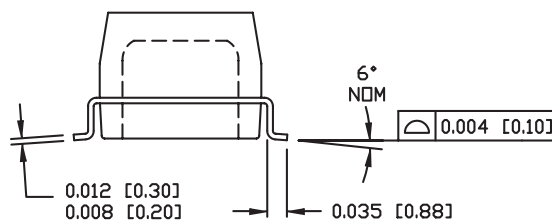
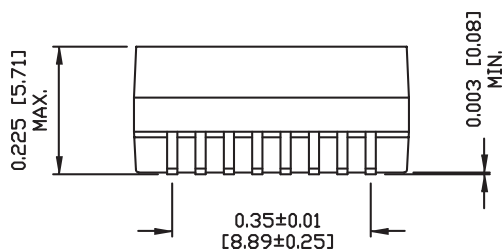
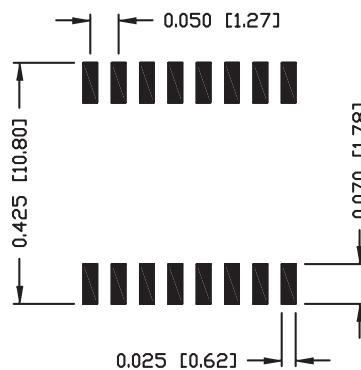
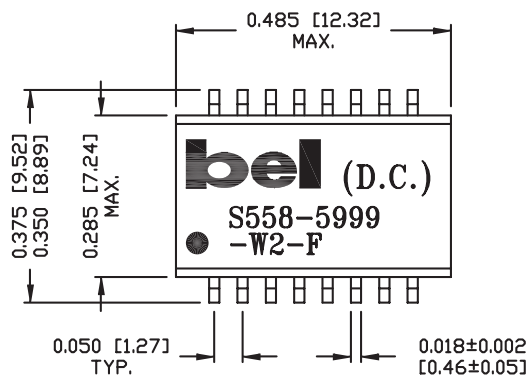
ELECTRICAL CHARACTERISTICS @ 25°C

<b>URNS RATIO</b> Tx (1-3-2) : (16-14-15) Rx (7-6-8) : (10-11-9)	1CT : 1CT 1CT : 1CT
<b>PHASING</b>	PER DOT CONVENTION
<b>DCL</b> (0°C - 70°C) Tx PIN 1-2 Rx PIN 7-8	350μH MIN. @100kHz, 100mV w/8mA DC BIAS
<b>LEAKAGE INDUCTANCE, Le</b> (0°C - 70°C) Tx PIN 1-2 (w/ 16-15 SHORTED) Rx PIN 7-8 (w/ 10-9 SHORTED)	0.4μH MAX. @1MHz, 20mV
<b>INTERWINDING CAPACITANCE, Cw/w</b> Tx (1-2 TO 16-15) Rx (7-8 TO 10-9)	25pF MAX. @1MHz, 20mV
<b>WINDING RESISTANCE, DCR</b> (1-2) ; (7-8)	1.3ΩH MAX.
<b>INSERTION LOSS</b> @ 100kHz TO 80MHz	1.0dB MAX.
<b>RETURN LOSS</b> (UNDER 100Ω ±15% ENVIRONMENT) @ 0.5 TO 30 MHz @ 30 TO 60 MHz @ 60 TO 80 MHz	16dB MIN. 16-20LOG(f/30MHz) dB MIN. 10dB MIN.
<b>COMMON TO COMMON MODE ATTENUATION</b> @ 0.1 TO 80 MHz @ 80 TO 125 MHz @ 125 TO 250 MHz	38dB MIN. 30dB MIN. 10dB MIN.
<b>CROSSTALK</b> @ 0.1 TO 80 MHz @ 80 TO 125 MHz @ 125 TO 250 MHz	38dB MIN. 30dB MIN. 10dB MIN.
<b>COMMON TO DIFFERENTIAL MODE ATTENUATION</b> @ 0.1 TO 80 MHz @ 80 TO 125 MHz @ 125 TO 250 MHz	38dB MIN. 30dB MIN. 10dB MIN.
<b>HIPOT</b>	PER HAND-WORK-03

**10/100BASE-T LAN MAGNETICS**  
**S558-5999-W2-F Transformer Module for Auto MDIX**



SUGGESTED PCB PAD LAYOUT



NOTES:

1. STANDARD MARKING REFER TO DOC. HAND-WORK-04.
2. PACKAGE CODE: 'QBS001'.