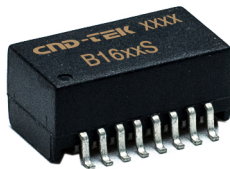


CND-TEK

B1602S

10/100 BASE-T MAGNETICS MODULES



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CND-TEK

深圳磁联达电子有限公司

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1. FEATURES:

1.1 Compatible with various 10/100 Base-TX transceiver requiring 1:1 transmit and 1:1 receive turns ratio.

1.2 Compliant with IEEE 802.3 standard including baseline wander compensation specification of 350μH OCL when Biased at 8mA

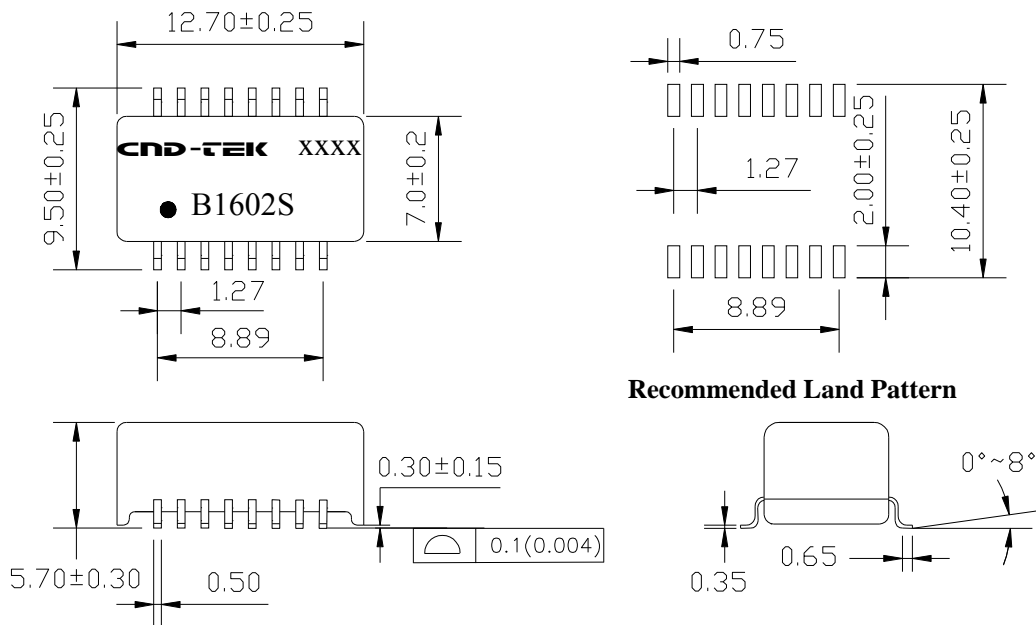
1.3 Low profile Surface Mount Packaging designed for Hi-Temp Reflow Process

1.4 Single channel interface for 10/100Mbps Ethernet applications with CMC's tuned to Enhance EMC system performance

1.5 Operating Temperature range: 0°C TO +70°C 1.6 Storage temperature

range: -25°C TO +125°C

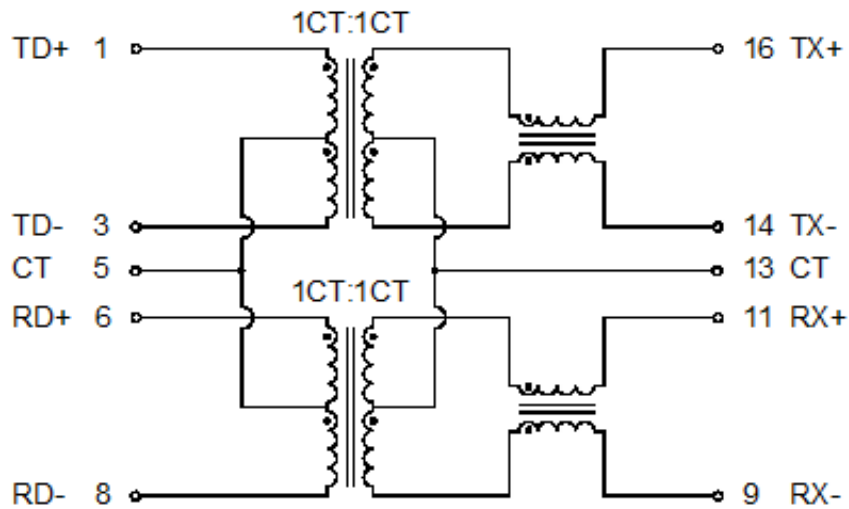
2. DIMENSIONS & MARKING



Note: 1、 Dimension : mm

2、 Unless otherwise specified, all tolerances are : ± 0.05 mm

3. SCHEMATICS:



4. ELECTRICAL SPECIFICATIONS @25°C

4.1 OCL : 350 μ H Min. @ 100 KHz, 100mV with 8mA DC Bias

4.2 Leakage Inductance: 0.5 μ H Max. @ 100KHz, 0.2V

4.3 Cw/w: 56pF Max. @ 100KHz, 0.2V

4.4 DCR: 0.90 Ω Max.

4.5 Turns Ratio(\pm 5%): 1CT:1CT(TX), 1CT:1CT(RX)

4.6 Polarity: 1-16, 6-11 In-Phase

4.7 Insertion Loss: -1.1 dB Max. @ 1-100MHz

4.8 Return Loss:
-16 dB Min. @ 1-30MHz
-12 dB Min. @ 30-60 MHz
-10 dB Min. @ 60-80 MHz

4.9 Cross Talk: -42 dB Min. @ 1-60 MHz

-35 dB Min. @ 60-100 MHz

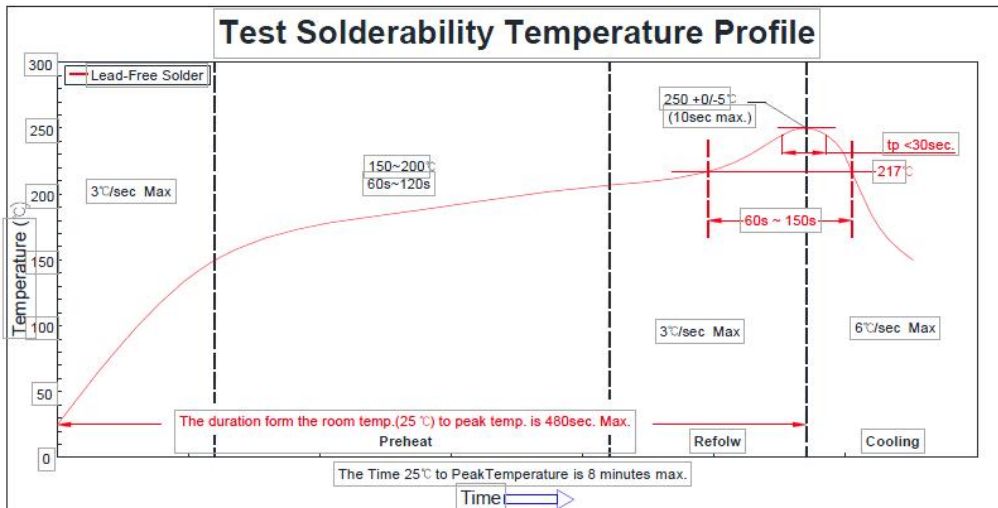
4.10 Common Mode Rejection : -40 dB Min. @ 1-30 MHz

-35 dB Min. @ 60 MHz

-30 dB Min. @ 80-100 MHz

4.11 Isolation HI-POT: 1500Vrms 1mA 1Second

5. Recommended Lead Free IR Reflow Soldering Curve :



Item	Soldertechnique simulation	Temperature (°C)	Time(s)	Temperature ramp/immersion and emersion rate
1	Solder iron	350 ± 10 (solder irno temp)	4~5	
2	Vapor phase reflow	215 ± 5 (vapor temp)	60 ± 5	
3	IR/convection reflow	255 ± 5 (component temp)	30 ± 5	1°C/s~4°C/s time above 183°C 90s~120s

Note: The curve includes recommended value only, please adjust your equipment to make sure the solder process. Details please refers to the standard J-STD-020.

6. Reliability Test Criteria:

6.1 Terminal strength: Pull test withstand 9.8N 60+/-0.5S no looseness or movement.

6.2 Solderbility: Dipped in 245°C +/- 5°C molten solder for 3+/-0.5 seconds, 95% min shall be smooth any and bright.

6.3 Resistance to soldering heat : Convection reflow condition setting: peak temperature at 260°C +0/-5°C above 217°C for 90-180 seconds, ramp-up rate 2-3°C/s. Ramp-down rate 6°C/s Max. No mechanical problem found. No electrical failure found per our specification.

6.4 Vibration: 1.5mm amplitude total excursion 10-55-10 Hz traversed in 1minute, x,y,z, axis for 2 hours. Shall not be any abnormality.

6.5 Random drop (Packing condition): Height 60cm, 3 times on the wood floorboard ,shall not be any abnormality.

6.6 Dry heat: 100+/-2°C 96 hours.

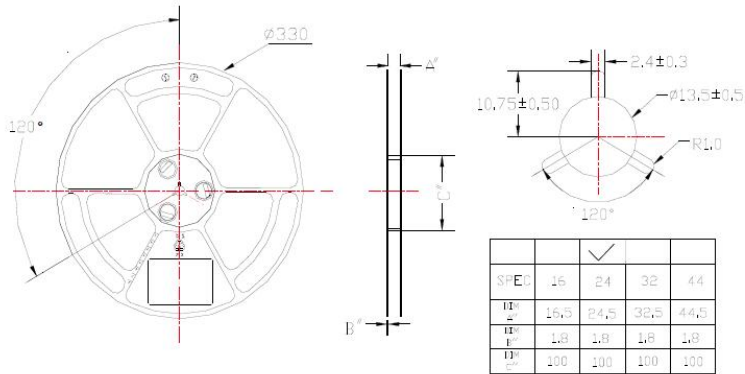
6.7 Cold: -20+/-2°C 96 hours.

6.8 Damp Heat: 60+/-2°C, 93+/-3% RH 96 hours.

6.9 Change of temperature: exposed 5 cycle; each consisting of 30 minutes at -20+/-2°C, 2-3 minutes at 20+/-2°C, 30 minutes at 85+/-2°C, 2-3 minutes at 20+/-2°C.

Packing Specification

1、 Each Reel Qty : 600pcs/pkg



2、 Total unit transformer in carton:

$$600 \times 10 \text{ (Total Reel in Carton)} = 6000 \text{ PCS}$$

