

# 产品承认书

## SPECIFICATION FOR APPROVAL

CUSTOMER:

CUSTOMER P/N:

P/N. :

B8203DG

DESCRIPTION:

10/100 BASE-T MAGNETICS MODULES

REF NO:

REV/NO:

A/0

DATE:

2014-9-15

ATTACHMENT:

■ SPECIFICATION

■ SAMPLE Q'TY OF SAMPLES \_\_\_\_\_ PCS

	√	CUSTOMER'S SIGNATURE	REMARK
FULL APPROVED			
CONDITIONAL APPROVED			
REJECTED			

深圳市华升微电子有限公司

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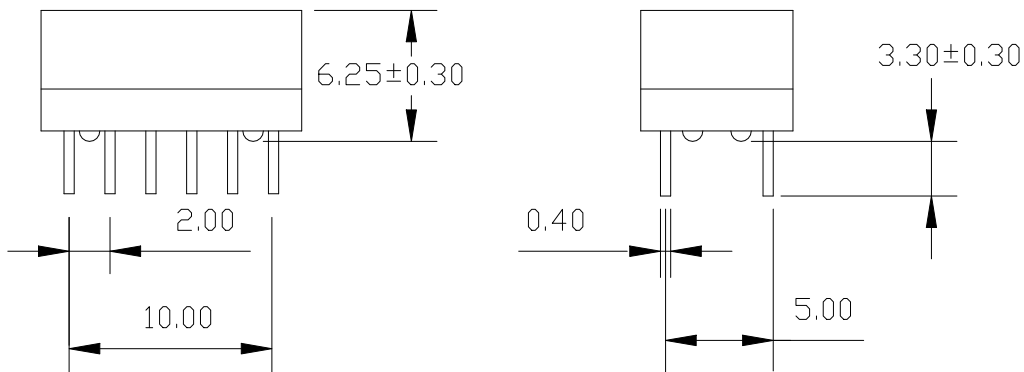
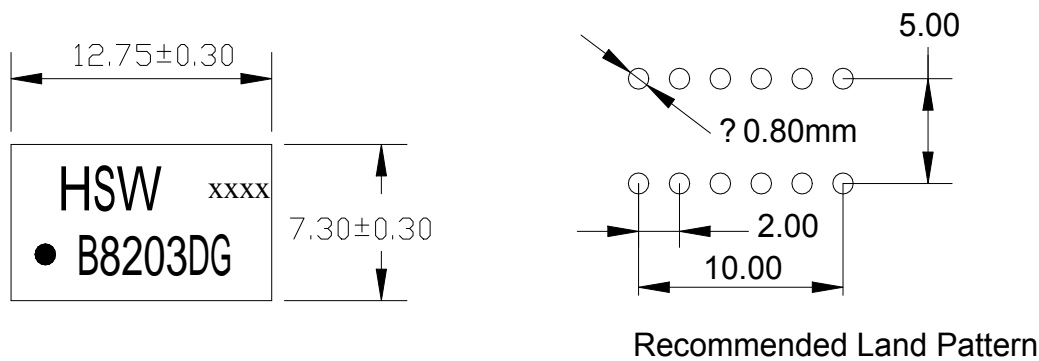
RoHS  
Compliant



## 1. FEATURES:

- 1.1 Compatible with various 10/100 Base-TX transceiver requiring 1:1 transmit and receive turns ratio
- 1.2 Compliant with IEEE 802.3 standard including baseline wander compensation specification of  $350\mu\text{H}$  OCL when Biased at 8mA from  $0^{\circ}\text{C}$  to  $70^{\circ}\text{C}$
- 1.3 Single channel interface for 10/100Mbps Ethernet applications with CMC's tuned to Enhance EMC system performance
- 1.4 Available in Through Hole package.
- 1.5 Operating Temperature range:  $0^{\circ}\text{C}$  TO  $+70^{\circ}\text{C}$
- 1.6 Storage temperature range:  $-25^{\circ}\text{C}$  TO  $+125^{\circ}\text{C}$

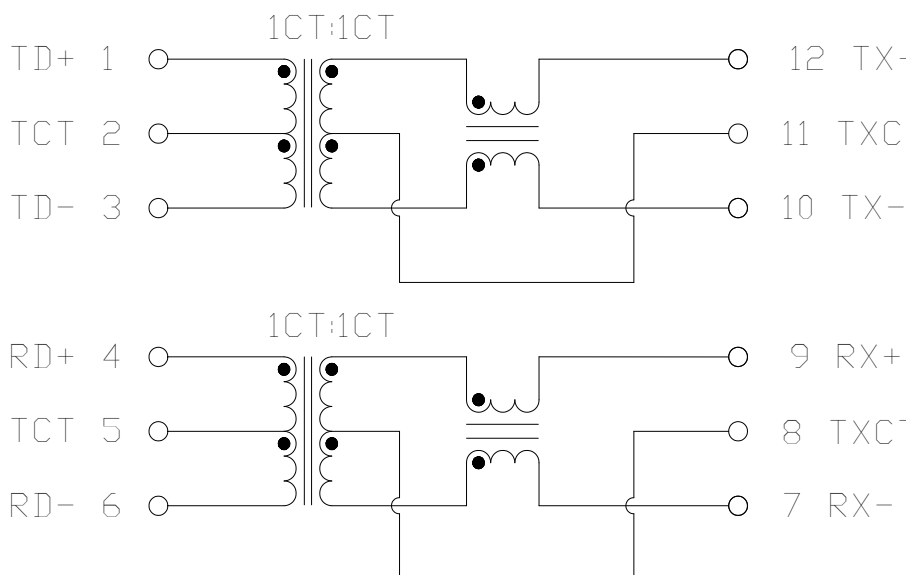
## 2. DIMENSIONS & MARKING



- Note:** 1、 Dimension: mm  
 2、 Unless otherwise specified, all tolerances are:  $\pm 0.05$ mm

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						PAGE: 2 OF 4	

### 3. SCHEMATICS:



### 4. ELECTRICAL SPECIFICATIONS @25°C

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

4.2 Leakage Inductance: 0.5  $\mu$ H Max. @ 100KHz, 0.2V

4.3 Cw/w: 28 pF Max. @ 100KHz, 0.2V

4.4 DCR: 0.90 $\Omega$  Max.

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

4.6 Polarity: 1-12, 4-9 In-Phase

4.7 Insertion Loss: -1.1 dB Max. (TX & RX)@ 1-100 MHz

4.8 Return Loss: -18 dB Min @ 0.5-30MHz

-15 dB Min @ 40 MHz

-13 dB Min @ 60 MHz

-11 dB Min @ 80 MHz

-10 dB Min.@ 100 MHz

4.9 Cross Talk: -45 dB Min.@ 30 MHz

-40 dB Min.@ 60 MHz

-35 dB Min.@ 100 MHz

4.10 Common Mode Rejection : -43 dB Min.@ 1-30 MHz

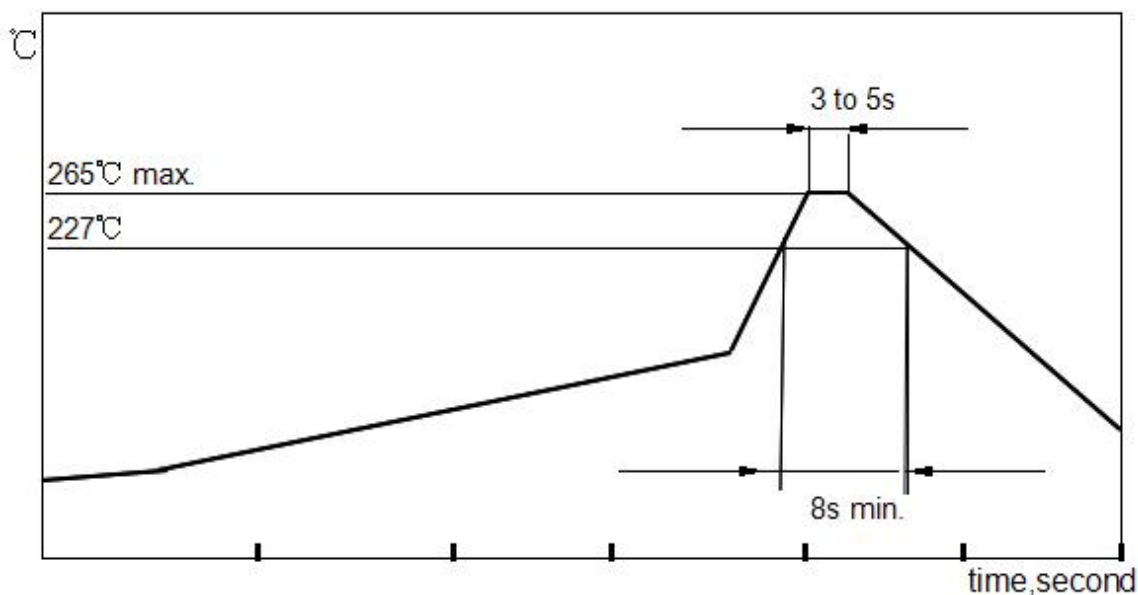
-37 dB Min.@ 60 MHz

-33 dB Min.@ 80-100 MHz

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

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			PAGE: 3 OF 4

## 5. Recommended Lead Free Wave Soldering Curve :



Item	Solder technique simulation	Temperature (°C)	Time(s)	Temperature ramp/immersion and emersion rate
1	Solder iron	350±10 (solder iron temp)	4~5	
2	Vapor phase reflow	215±5 (vapor temp)	10±1	25mm/s±6mm/s
3	Wave: Topside Board-mount product	260±5 (solder temp)	20±1	
4	Wave: Bottomside Board-mount	260±5 (solder temp)	10±1	Preheat 1°C/s~4°C/s to within 100°C of solder temp
5	Vapor phase reflow	215±5 (vapor temp)	215±5 (vapor temp)	

## 6. Reliability Test Criteria:

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

6.2 Solderability: 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 : Dip in 260°C+/- 5°C molten solder for 5+/- 0.5 seconds. Shall not be any abnormality.

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, 2-3minutes at 20+/-2°C, 30 minutes at 85+/-2°C, 2-3 minutes at 20+/-2°C.

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			PAGE: 4 OF 4