

## Single 10 BASE FILTER WITH CONNECTOR MODEL NO. : RJLB-057TC1

### Features:

◎ **RoHS Compliant**

- Fully shielded magnetics protect data from internally generated digital noise
- Reduces the overall length of the signal path for improved common mode performance
- Implements full common mode termination scheme with used and unused twisted pairs
- Meets IEEE802.3 Baseline Wander Compensation specification
- Integrates high voltage capacitor to chassis ground
- Supports all major transceivers with matched turns ration and complete integration of specified termination

◎ **Design for 100base-tx transmission over UTP-5 cable**

◎ **Operating TEMP. range: -40 to +85**

◎ **Storage TEMP. range: -55 to + 125**

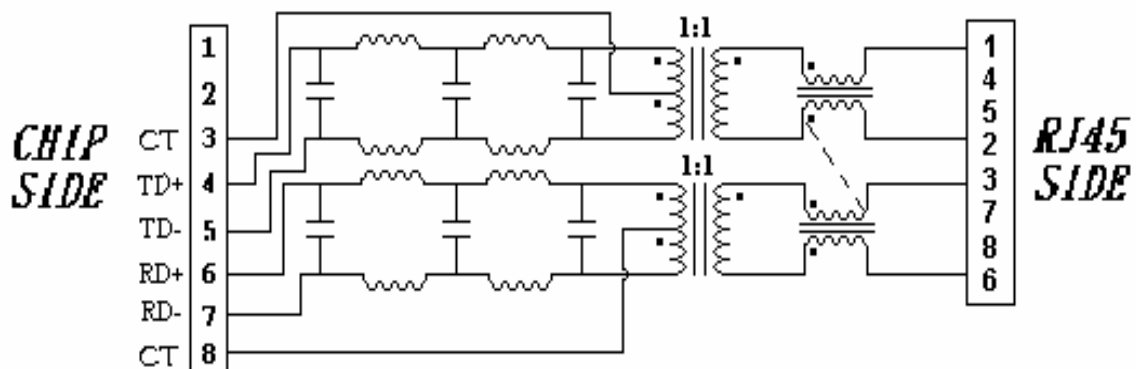
Primary OCL inductance: 350 $\mu$ H MIN. at 100KHz/0.1Vrms with 8mA DC bias.

With the LED lamp.

### Typical Performance Characteristics @ 25

Insertion Loss (dB MAX)	Return Loss (dB Min @100 $\pm$ 15 $\Omega$ )				Differential to Common Mode Rejection (dB MIN)	Cross talk (dB MIN)					CMRR (dB MIN)	Isolation Voltage (Vrms min)
	MHz	MHz				MHz	MHz					
1~100	1~30	40	50	60~80	1~100	20	40	60	80	100	1~100	1500
-1.0	-16	-14	-12	-10	-33	-47	-40	-37	-35	-33	-30	

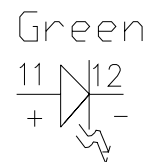
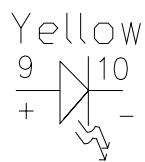
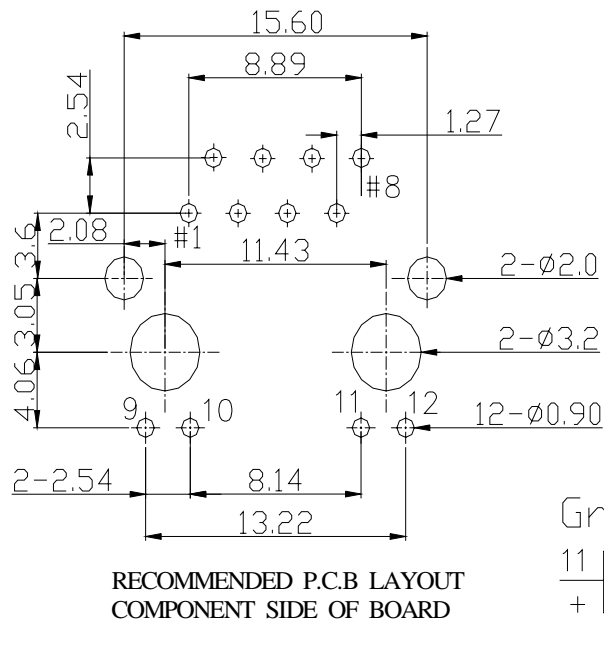
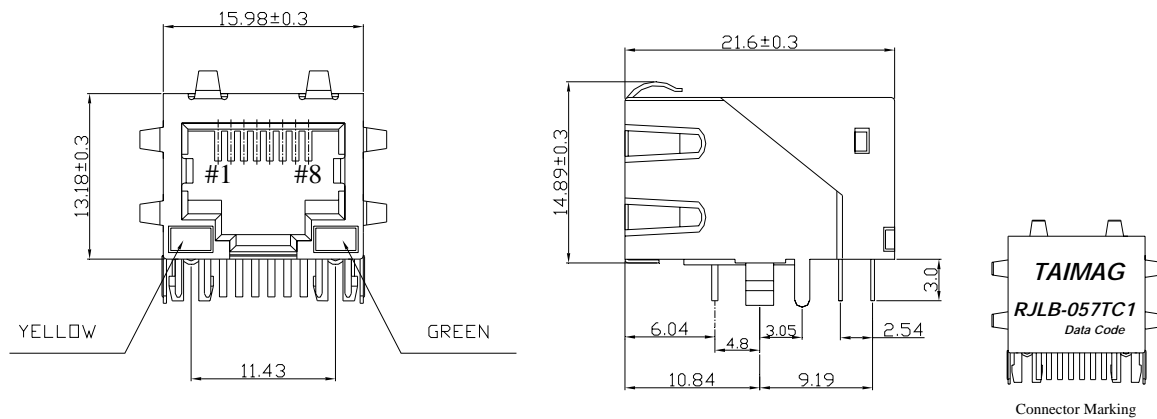
### Schematic Design on MDI Interface Circuitry



## MODEL NO. : RJLB-057TC1

Dimension: mm

TOLERANCE:±0.15 (Unless otherwise specified)



RECOMMENDED P.C.B LAYOUT  
COMPONENT SIDE OF BOARD

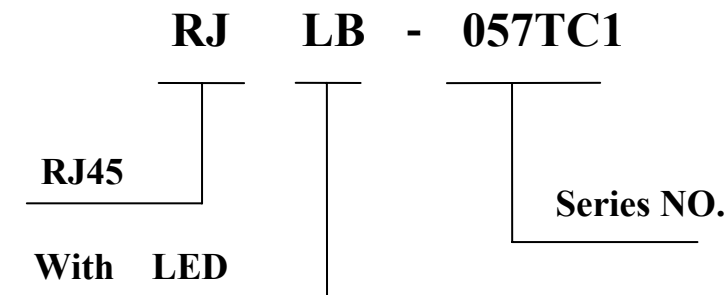


NUMBER:RD-SDRJLB-057TC1  
DATE : 2005/09/09 -I (REV:A1)

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## MODEL NO. : RJLB-057TC1

### Ordering Information



### Requirements :

#### 1. Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable product drawing.

#### 2. Materials and Finish

##### A. Contact:

**RJ Contact : Phosphor Bronze, Thickness=0.30mm**

**Finish : Contact Area :6 $\mu$ "min. Gold over 50 $\mu$ "min. Nickel**

**RJ Joint Contact : Phosphor Bronze, Thickness=0.30mm**

**Finish : 80 $\mu$ "min. Sn over 50 $\mu$ "min. Nickel**

**LED Joint Contact : Brass, Thickness=0.5mm**

**Finish : 80 $\mu$ "min. Sn over 50 $\mu$ "min. Nickel**

##### B. Plastic Part :

**(1) Set Housing : Thermoplastic, PBT, Black**

**UL FILE NO. : E107536**

**Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.**

**Grade : E202G30BK**

**Flame Class : UL 94V-0**

**(2) Insert : Thermoplastic, PBT, Black**

**UL FILE NO. : E107536**

**Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.**

**Grade : E202G30BK**

**Flame Class : UL 94V-0**

**(3) Spacer : Thermoplastic, PBT, Black**

**UL FILE NO. : E107536**

**Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.**

**Grade : E202G30BK**

**Flame Class : UL 94V-0**

##### C. Shield Material :

**Cartridge t=0.25mm**

**10  $\mu$ "-20  $\mu$ " Thick Nickel over Brass**



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## **MODEL NO. : RJLB-057TC1**

### **D. LED Lamp**

- (a) Lens Color : Transparent with color
- (b) Emitted Color : Green & Yellow
- (c) View Angle : 65°
- (d) Wave Length : Green 565nm ; Yellow 585nm
- (e) Recommended operation current (IF) : 20 mA

### **3. Ratings**

- (1) Voltage rating : 125 VAC
- (2) Current rating : 1.5A

### **Durability :**

- (1) 1000 cycles with no function damage for RJ-45. Abnormalities shall be present after the test.
- (2) Low Level Contact Resistance :  $\Delta R=30m\Omega$  maximum (final)
- (3) The sample should be mounted in the tester and fully mated and unmated 500 times per hour at the rate of 25mm/min. EIA-364-09C.

## Model NO.: RJLB-057TC1

1. Unit weight :5.7 grams
2. package : 100 pcs / tray / 0.61 kgms
3. Carton : 1000 pcs / 10 layers of tray
4. Gross weight : 6.6455 kgms

### Package drawing:

