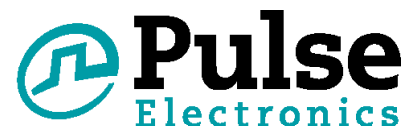


# PulseJack™

## 1x1 Tab-UP RJ45



### Description:

100 Base-TX (Fast Ethernet) RJ45 1x1 Tab-UP with LEDs 8-pin (J1 series) and 6-pin (JP series) integrated magnetics connector, designed to support applications, such as ADSL modems, LAN-on-Motherboard, and Hub and Switches.



### Features and Benefits:

- RoHS peak wave solder temperature rating 260°C  
Suitable for CAT 5 & 6 UTP cable or better
- Meets IEEE 802.3 specification
- 350μH minimum OCL with 8mA bias current
- High performance for maximum EMI suppression

Electrical Specifications @ 25°C - Operating Temperature 0°C to +70°C

| RoHS<br>Compliant<br>Part Number<br>(Number of Ports) | Turns<br>Ratios |       | EMI<br>Fingers | LEDs<br>L/R | Insertion<br>Loss<br>(dB TYP) | Return Loss<br>(dB TYP)<br>100Ω (±15Ω) |             |              |              |              | Crosstalk<br>(dB TYP) |              |               | Common Mode<br>Rejection<br>(dB TYP) |               | Hipot<br>(Vrms)<br>@60Hz<br>1 MIN |
|-------------------------------------------------------|-----------------|-------|----------------|-------------|-------------------------------|----------------------------------------|-------------|--------------|--------------|--------------|-----------------------|--------------|---------------|--------------------------------------|---------------|-----------------------------------|
|                                                       | TX              | RX    |                |             |                               | 1-65<br>MHz                            | 1-10<br>MHz | 10-30<br>MHz | 30-60<br>MHz | 60-80<br>MHz | 1-30<br>MHz           | 30-60<br>MHz | 60-100<br>MHz | 1-50<br>MHz                          | 50-150<br>MHz |                                   |
| J1006F01PNL                                           | 1CT:1           | 1CT:1 | No             | G/Y         | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1006F21NL                                            | 1CT:1           | 1CT:1 | YES            | NONE        | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1011F01PNL                                           | 1CT:1           | 1CT:1 | No             | G/Y         | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1011F21PNL                                           | 1CT:1           | 1CT:1 | YES            | G/Y         | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1012F01CNL                                           | 1CT:1           | 1CT:1 | No             | Y/G         | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1012F21CNL                                           | 1CT:1           | 1CT:1 | YES            | Y/G         | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1012F21KNL                                           | 1CT:1           | 1CT:1 | YES            | G/G         | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1012F21RNL                                           | 1CT:1           | 1CT:1 | YES            | RG/R        | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1026F01NL                                            | 1CT:1           | 1CT:1 | No             | NONE        | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1026F01PNL                                           | 1CT:1           | 1CT:1 | No             | G/Y         | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| J1026F21CNL                                           | 1CT:1           | 1CT:1 | YES            | Y/G         | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| JP006821UNL                                           | 1CT:1           | 1CT:1 | YES            | G_O/Y       | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| JP011821UNL                                           | 1CT:1           | 1CT:1 | YES            | G_O/Y       | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |
| JP026821UNL                                           | 1CT:1           | 1CT:1 | YES            | G_O/Y       | -1.0                          | -20                                    | -16         | -12          | -10          | -10          | -40                   | -35          | -30           | -30                                  | -20           | 1500                              |

### Notes:

- LEDs Left/Right: G = green, Y = yellow, G\_O = green/orange bi-color LED, R = LEDs with resistors.

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

### RJ45 Durability Test Rating

| Part Number  | Mating Force (MAX) | Unmating Force (MAX) | Durability     | Plug to Jack Retention (MIN) |
|--------------|--------------------|----------------------|----------------|------------------------------|
| JP/J1 Series | 5 lbs./2.268 kgs.  | 5 lbs./2.268 kgs.    | 750 Insertions | 20 lbs./9.072 kgs.           |

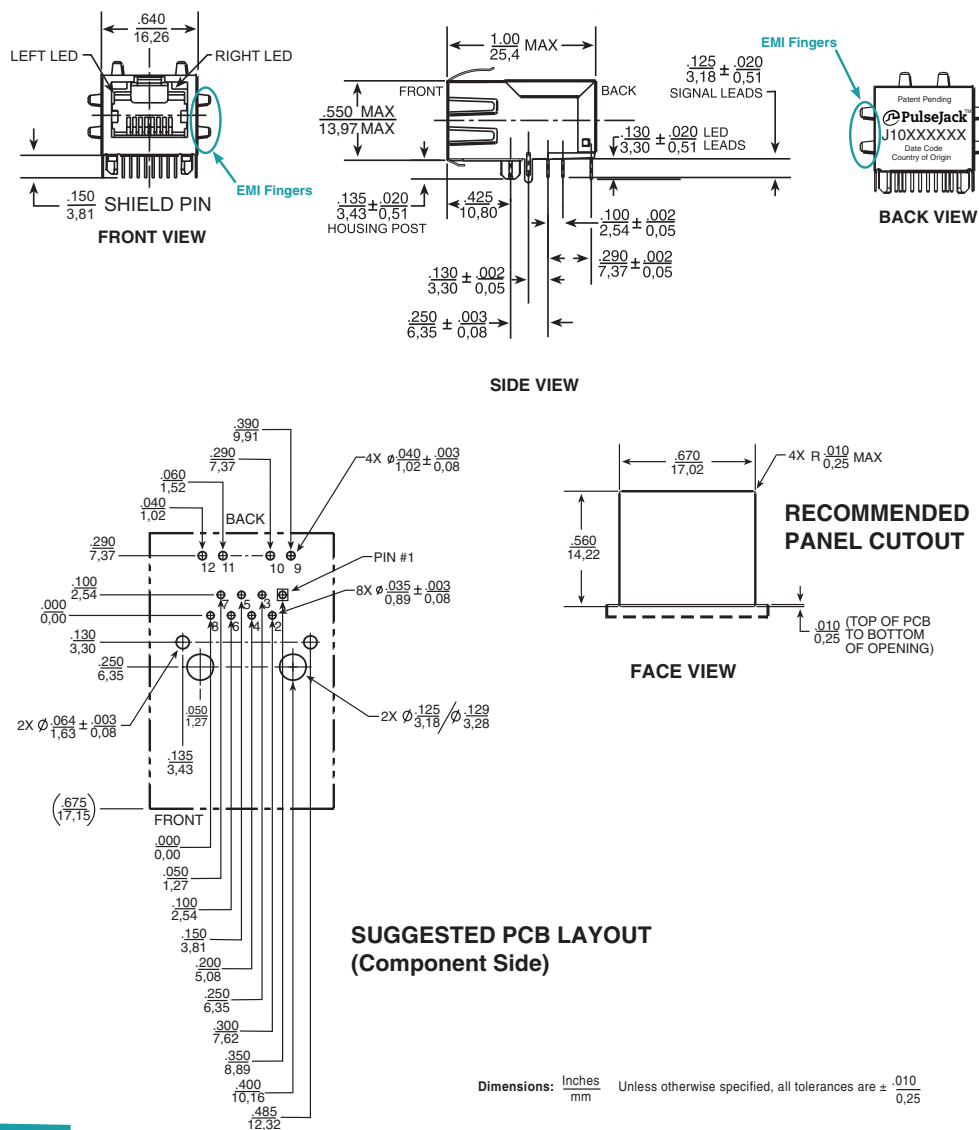
### RJ45 Material Specification

| Part Number  | Shield   |                                                     | Contact         |                                                           |                  | Housing       |               | MSL <sup>2</sup> Rating |
|--------------|----------|-----------------------------------------------------|-----------------|-----------------------------------------------------------|------------------|---------------|---------------|-------------------------|
|              | Material | Finish                                              | Material        | Plating Area                                              | Solder Area      | Material      | Specification |                         |
| JP/J1 Series | Brass    | 10-20μ inches thick nickel over 10-20μ inches Brass | Phosphor Bronze | Nickel underplating and selective gold plating 15μ inches | Tin matte finish | Thermoplastic | UL 94 V-0     | 1                       |

#### Notes:

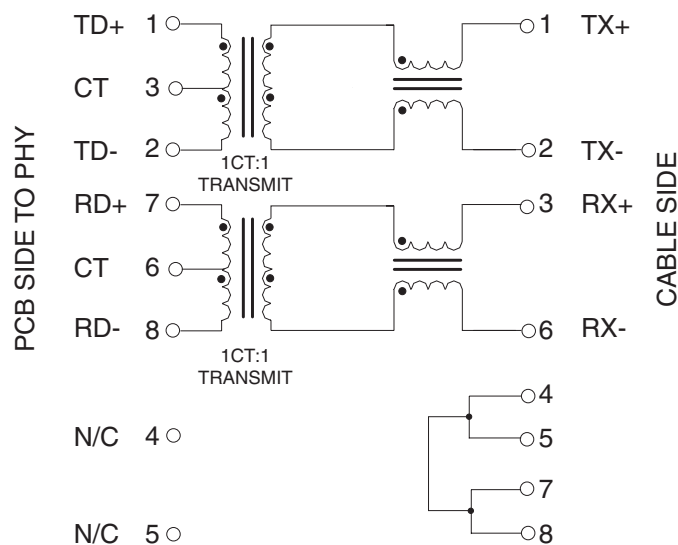
1. Connector dimensions comply with FCC dimension requirements. 2. MSL = Moisture Sensitivity Level rating from 1 to 5 (highest rating = 1, lowest rating = 5)

### J1 Series Mechanicals



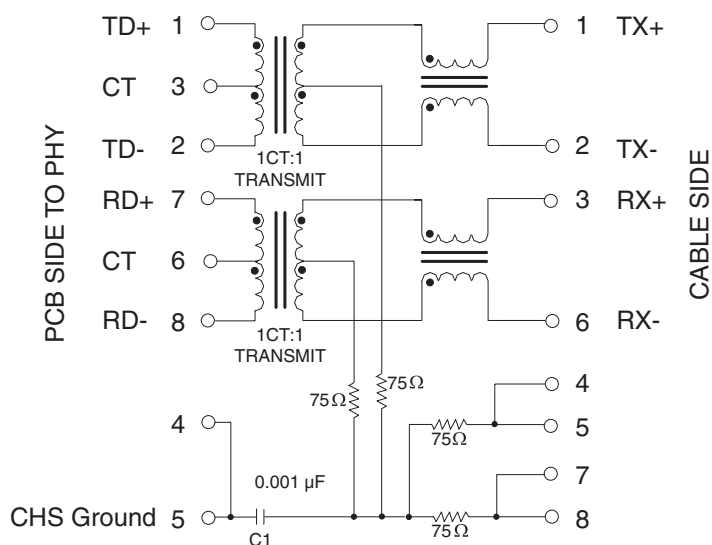
J1 Series Electrical Schematics

J1006



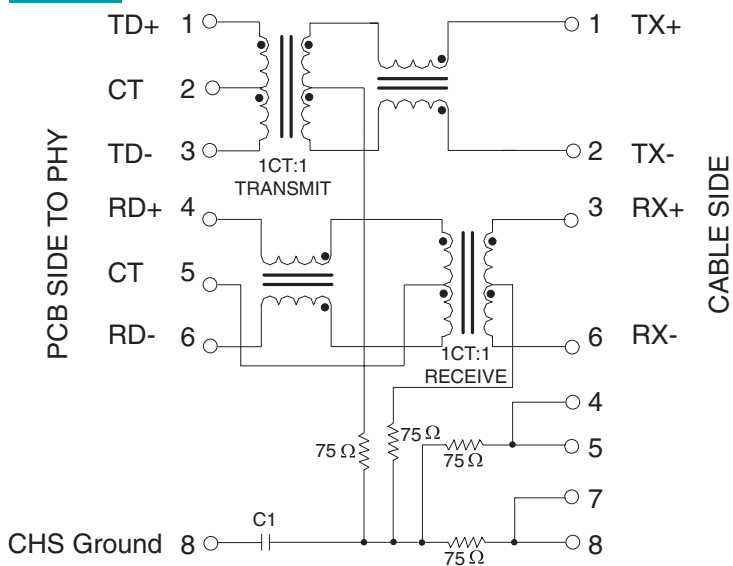
Note: Connect CHS GND to PCB ground.

J1011



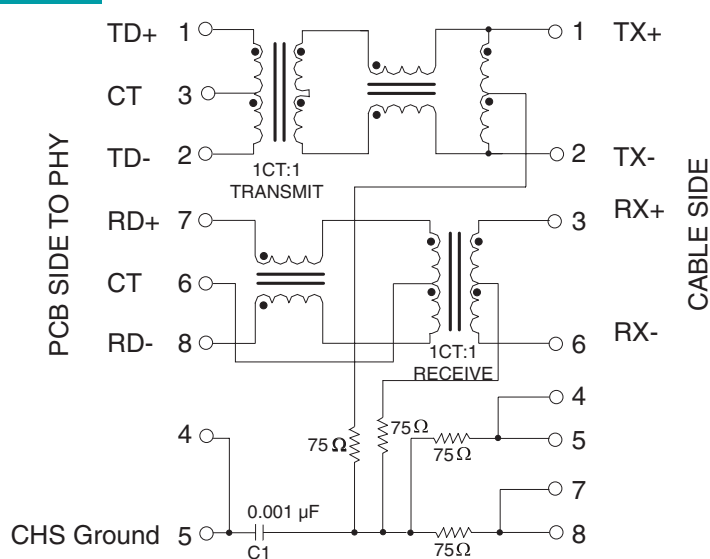
Note: Connect CHS GND to PCB ground.

J1012

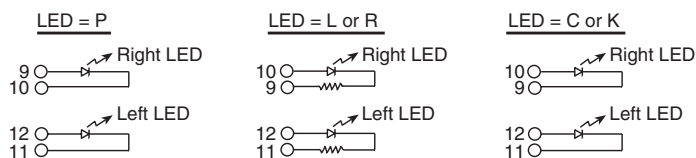


Note: Connect CHS GND to PCB ground.

J1026



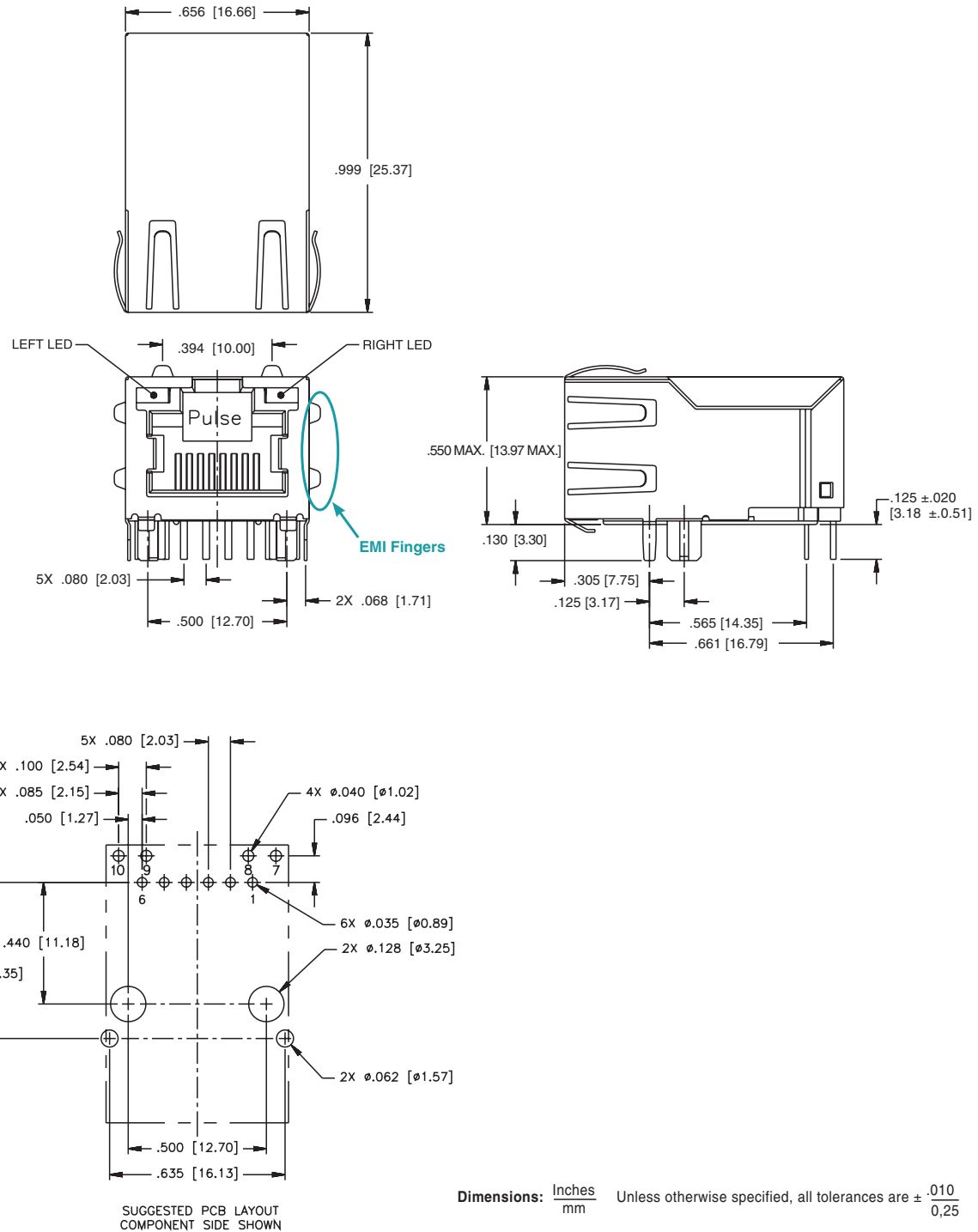
Note: Connect CHS GND to PCB ground.



| Standard LED | Wavelength | Forward* V(MAX) | (TYP) |
|--------------|------------|-----------------|-------|
| Yellow       | 585 nm     | 2.5 V           | 2.1 V |
| Green        | 565 nm     | 2.5 V           | 2.2 V |

\* With a forward current of 20 mA

## JP Series Mechanicals

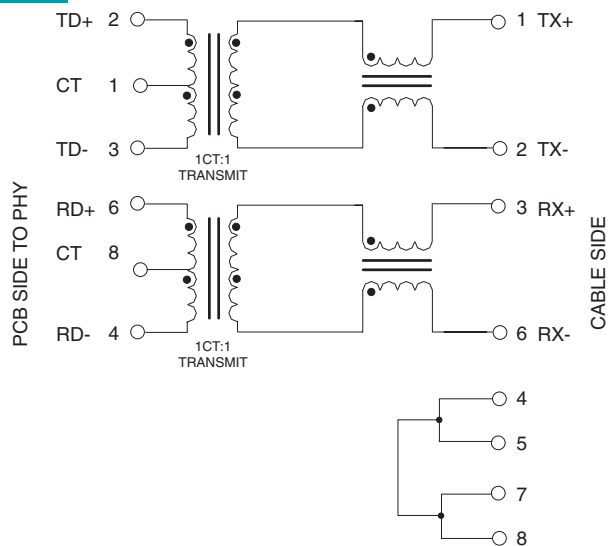


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## 1x1 Tab-UP RJ45

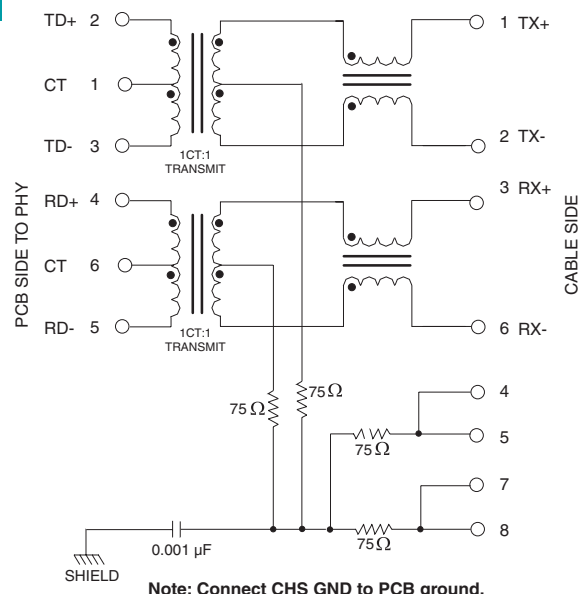
### JP Series Electrical Schematics

#### JP006



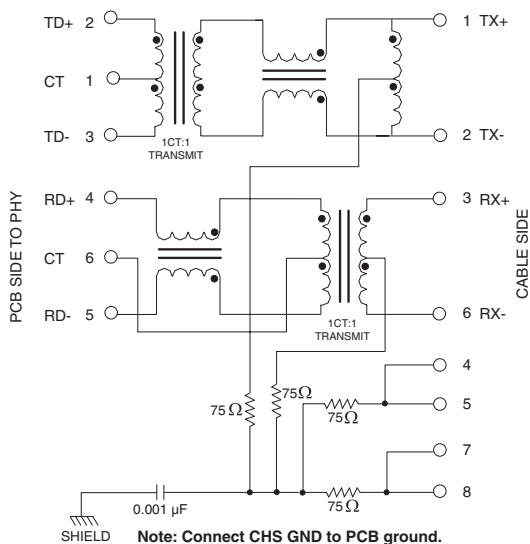
Note: Connect CHS GND to PCB ground.

#### JP011

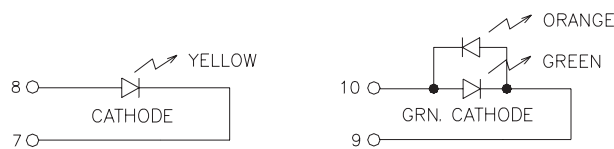


Note: Connect CHS GND to PCB ground.

#### JP026



Note: Connect CHS GND to PCB ground.



| Standard LED | Wavelength | Forward* V (MAX) | (TYP)       |
|--------------|------------|------------------|-------------|
| Yellow       | 585 nm     | 2.5 V            | 2.1 - 2.2 V |
| Green        | 565 nm     | 2.5 V            | 2.1 - 2.2 V |
| Orange       | 610 nm     | 2.5 V            | 2.1 - 2.2 V |

\* With a forward current of 20 mA

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