#### **ARJM14 Series**

Request Samples (S)



Check Inventory (>)



59.0 x 21.4 x 13.6 mm **RoHS/RoHS II Compliant** MSL Level = 1

#### **Features**

- IEEE 802.3 compliant and UL certified
- High performance integrated magnetics for EMI suppression
- Suitable for CAT5 and CAT6 UTP cabling
- RoHS peak wave solder temperature rating 265°C
- Extended operating temperature -40 to 85°C option

### **Applications**

- Multiport 10/100/1G Base-T LAN
- Network Interface Cards
- High Density Data Center Switches
- NAS / Expander storage
- Data Center Servers, Routers
- Media converters

### **Electrical Specifications**

| Parameters            | Minimum | Typical | Maximum | Units | Notes                               |  |
|-----------------------|---------|---------|---------|-------|-------------------------------------|--|
| Turn Ratio (±3%)      |         | 1CT:1CT |         |       | 100kHz, 0.1V                        |  |
| Inductance            | 350     |         |         | μН    | 100kHz, 0.1V, 8mADC                 |  |
| Hipot                 | 2250    |         |         | VDC   | 1mA Max<br>Complies with IEEE 802.3 |  |
| Operating Temperature | -40     |         | +85     | °C    | See options                         |  |
| Storage Temperature   | -40     |         | +85     | °C    |                                     |  |
| Insertion Loss        | -1.0    |         |         | dB    | 0.3-100MHz                          |  |
| Return Loss           |         |         | -18     |       | 1-30MHz                             |  |
|                       |         |         | -16     | dB    | 30-60MHz                            |  |
|                       |         |         | -12     | аь    | 60-80MHz                            |  |
|                       |         |         | -10     |       | 80-100MHz                           |  |
| Crosstalk             |         |         | -30     | dB    | 1-100MHz                            |  |
| CMRR                  |         |         | -30     | dB    | 1-100MHz                            |  |

**ARJM24 Series is RoHS/RoHS II Compliant** 

MSL level: 1

**UL Certification Number: E503350** 



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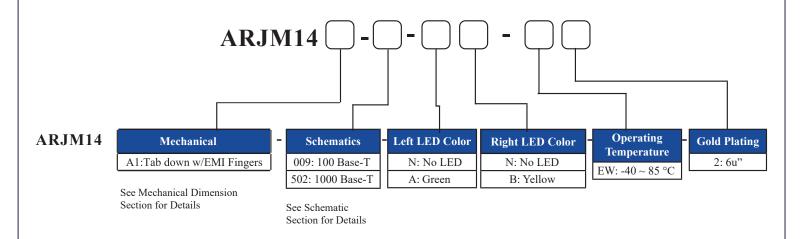


Check Inventory (S)



59.0 x 21.4 x 13.6 mm **RoHS/RoHS II Compliant** MSL Level = 1

#### **Part Number Identification**



### **Available Part Numbers**

| Part Number         | Speed         | Tab<br>Direction | LED<br>(Left:Right) | Operating<br>Temperature | Solder<br>Method | Gold<br>Plating |
|---------------------|---------------|------------------|---------------------|--------------------------|------------------|-----------------|
| ARJM14A1-009-AB-EW2 | 10/100 Base-T | Down             | G: Y                | -40°C ~ 85°C             | Wave             | 6μ"             |
| ARJM14A1-009-NN-EW2 | 10/100 Base-T | Down             | none                | -40°C ~ 85°C             | Wave             | 6μ"             |
| ARJM14A1-502-AB-EW2 | 1000 Base-T   | Down             | G : Y               | -40°C ~ 85°C             | Wave             | 6μ"             |



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#### **Materials**

1. Housing:

Material:

PBT, UL94V-0

Standard Color: Black

3. Insert:

Material:

PBT, UL94V-0

Contact Material: Phosphor Bronze

Plating (1): Nickel

Plating (2): Gold, 6u"

5. Metal Shell:

Material: Brass

Plating (1): Nickel

2. Contact Pin:

Material: Phosphor Bronze

Plating (1): Nickel

Plating (2): 100%Sn

4. LED:

Material: Diffused Epoxy Lens, 0.5x0.5mm

Carbon Steel wireframe leads

Note: Abracon LLC will not alter any material composition, without prior written notification.



#### **ARJM14 Series**

Request Samples



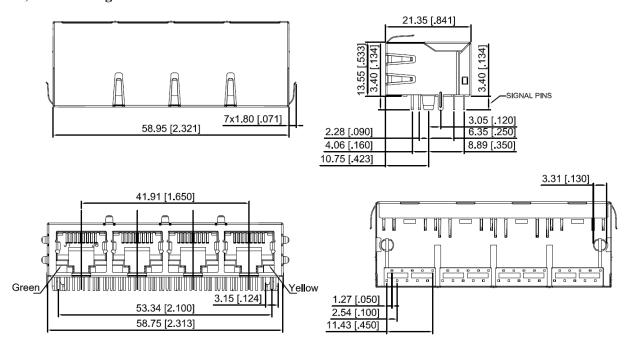
Check Inventory



59.0 x 21.4 x 13.6 mm RoHS/RoHS II Compliant MSL Level = 1

### **Mechanical Specifications**

#### A1: 1 x 4, w/ EMI Fingers



Dimensions are in mm[inches]. Unless otherwise noted, tolerance is  $\pm 0.25$ mm[0.010]



#### **ARJM14 Series**

Request Samples



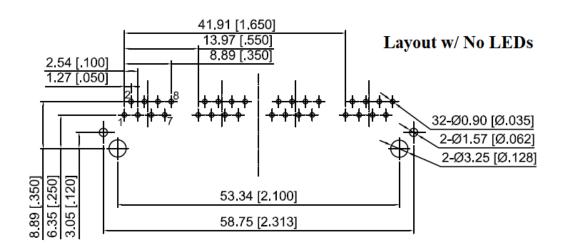
Check Inventory

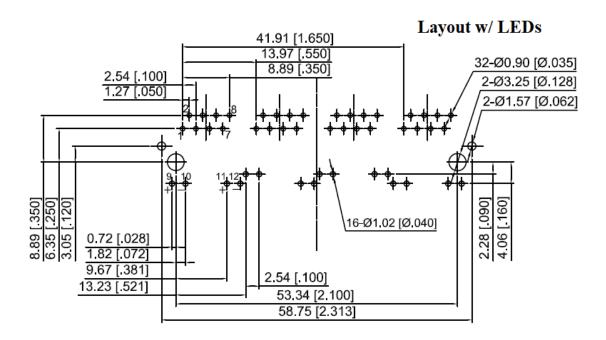


59.0 x 21.4 x 13.6 mm RoHS/RoHS II Compliant MSL Level = 1

#### **Recommended Layout**

10/100 Base-T





Dimensions are in mm[inches]. Unless otherwise noted, tolerance is  $\pm 0.25$ mm[0.010]



#### **ARJM14 Series**

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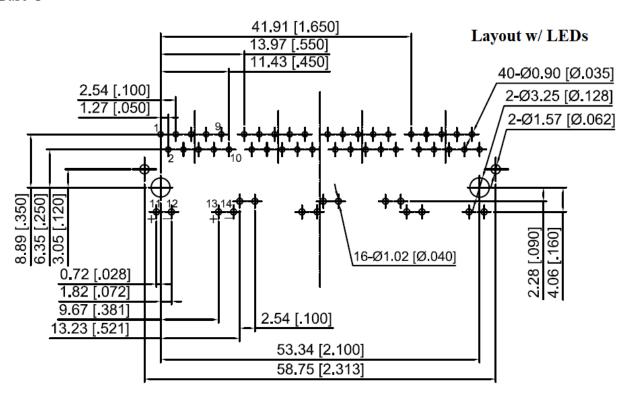


Check Inventory (S)



59.0 x 21.4 x 13.6 mm **RoHS/RoHS II Compliant** MSL Level = 1

1000 Base-T



Dimensions are in mm[inches]. Unless otherwise noted, tolerance is  $\pm 0.25$ mm[0.010]



#### **ARJM14 Series**

Request Samples



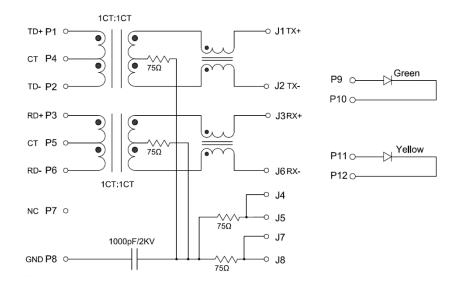
Check Inventory



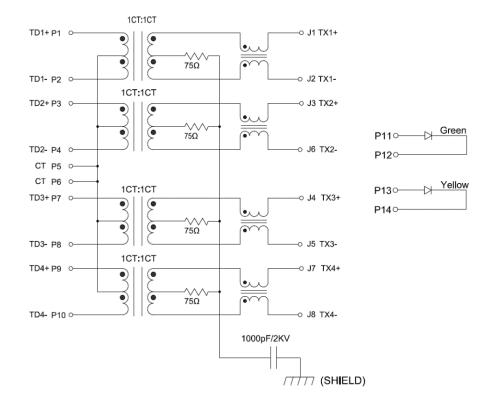
59.0 x 21.4 x 13.6 mm RoHS/RoHS II Compliant MSL Level = 1

#### **Schematic**

A12 (10/100 Base-T)



502 (1000 Base-T)





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Request Samples (S)



Check Inventory (>)



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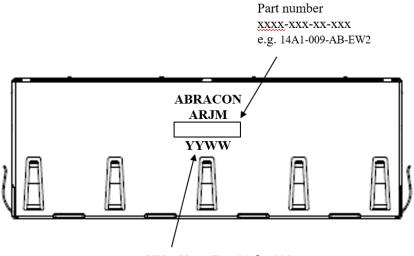
#### LED SPECIFICATION. @20mA Forward Current

AB option (Left: Green - Right: Yellow)

|                 |           | ,         |  |
|-----------------|-----------|-----------|--|
| Color           | Green     | Yellow    |  |
| Wavelength      | 565nm Typ | 585nm Typ |  |
| Forward Voltage | 2.2V Typ  | 2.1V Typ  |  |

NN option (no LEDs)

### **Part Marking**



YY: Year: E.g. 21 for 2021

WW: Week: E.g. 05 for the 5th week of the year.

Marking Method = Laser Marking



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**REVISED: 01-21-21** 

ABRACON IS ISO9001-2015 CERTIFIED

#### **ARJM14 Series**

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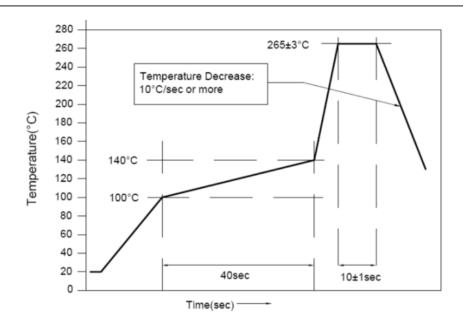


Check Inventory



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#### **Wave Profile**



#### **Packaging**

| Series | Approximate | Approximate     | Qty / Carton | Tray / | Pcs/ | Carton Dimensions  |
|--------|-------------|-----------------|--------------|--------|------|--------------------|
|        | Weight / Pc | Weight / Carton | (pcs)        | Carton | Tray | (LxWxH)            |
| ARJM14 | 21.0g       | 11.0Kg          | 400          | 20     | 20   | 340 x 215 x 275 mm |

ATTENTION: Abra con LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.

