

RJ45 Jack with 10/100/1000 Base-TX Magnetic/Dual USB Combo

ARJU31B

RoHS
Compliant



18.85 x 30.52 x 27.40 mm

FEATURES:

- Tab up RJ 45 jack + 2 USB
- Available with or without LED
- Suitable CAT 5 & 6 cable and UTP
- Comply IEEE 802.3ab
- LAN Magnetic with RJ45 Jack
- Suitable for RoHS compliant reflow

APPLICATIONS:

- 10, 100 and 1000 Base-TX
- NIC, LoM and PC

STANDARD SPECIFICATIONS

Operating temperature range: 0°C to +70°C Storage temperature range: -40°C to +85°C

| Part Number | Turns Ratio $\pm 5\%$ | | EMI Fingers | LEDs | Insertion Loss (dB max) 1 - 100 MHz | Return Loss (dB MIN @100 Ω \pm 15 Ω) | | |
|------------------------|-----------------------|---------|-------------|-------|--|---|-------------|-------------|
| | TX | RX | | L/R | | 1 - 30 MHz | 30 - 60 MHz | 60 - 80 MHz |
| ARJU31B-MASB-AD-B-FLU2 | 1CT:1 | 1CT:1CT | No | G-O/Y | -1.0 | -18 | -16 | -12 |
| ARJU31B-MCSC-B-AD-ELU2 | 1CT:1 | 1CT:1CT | No | Y/G-O | -1.0 | -18 | -16 | -12 |
| ARJU31B-MASD-A-B-HLU2 | 1CT:1 | 1CT:1CT | No | G/Y | -1.0 | -20 | -14 | -12 |
| ARJU31B-MCSM-AD-B-GLT2 | 1CT:1 | 1CT:1 | No | G-O/Y | -1.0 | -18 | -16 | -12 |
| ARJU31B-MCSN-A-AD-ELT2 | 1CT:1 | 1CT:1 | No | G/G-O | -1.0 | -18 | -16 | -12 |
| ARJU31B-MCSO-A-AD-EMU2 | 1CT:1CT | 1CT:1CT | No | G/G-O | -1.0 | -18 | -16 | -12 |

| Part Number | Crosstalk (dB TYP) | | | Common Mode Rejection (dB TYP) | | Hipot (Vrms) |
|------------------------|--------------------|-------------|--------------|--------------------------------|-------------|--------------|
| | 1.0 - 10 MHz | 32 - 60 MHz | 60 - 100 MHz | 1 - 50 MHz | 50 - 100MHz | @ 60Hz |
| ARJU31B-MASB-AD-B-FLU2 | -40 | -35 | -30 | -30 | -20 | 1500 |
| ARJU31B-MCSC-B-AD-ELU2 | -35 | -35 | -35 | -30 | -30 | 1500 |
| ARJU31B-MASD-A-B-HLU2 | -35 | -35 | -- | -30 | -30 | 1500 |
| ARJU31B-MCSM-AD-B-GLT2 | -35 | -35 | -35 | -30 | -30 | 1500 |
| ARJU31B-MCSN-A-AD-ELT2 | -40 | -40 | -35 | -30 | -25 | 1500 |
| ARJU31B-MCSO-A-AD-EMU2 | -40 | -35 | -30 | -30 | -20 | 1500 |

Contact Abracon for more custom configurations. See options to build a custom configuration.

OPTIONS AND PART IDENTIFICATION

ARJU31B - - - -

| Mechanical | Schematic | Left LED color (e.g. B for Yellow, AB for Green-Yellow) | Right LED color (e.g. B for Yellow, AB for Green-Yellow) | LED polarity | Turns Ratio (Tx) | Turns Ratio (Rx) | Gold plating |
|--|---|---|---|---|--|---|---|
| MA ~ MD (Please see mechanical section) | SA ~ ST (Please see schematic section) | Blank: No LED A: Green B: Yellow C: Amber D: Orange | Blank: No LED A: Green B: Yellow C: Amber D: Orange | Blank: No LED E ~ K (Please see 7.0 LED polarity section) | K: 1CT:1.41 L: 1CT:1 M: 1CT:1CT N: 1.414:1CT O: 1CT:1.41CT P: 1:2CT Q: 1:1.414CT R: 1CT:2.5 | S: 1CT:1.41 T: 1CT:1 U: 1CT:1CT V: 1.414:1CT W:1CT:1.41CT X: 1:2CT Y: 1:1.414CT Z: 1CT:2.5 | 2: 6u“ 3: 15u“ 4: 30u“ 5: 50u“ |



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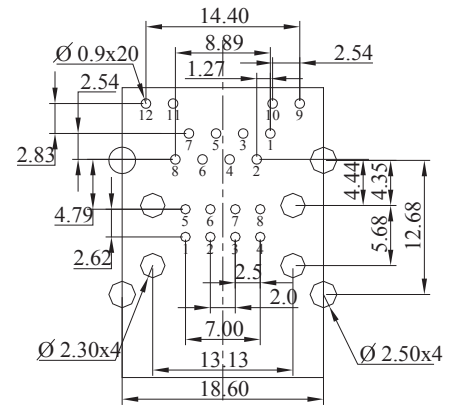
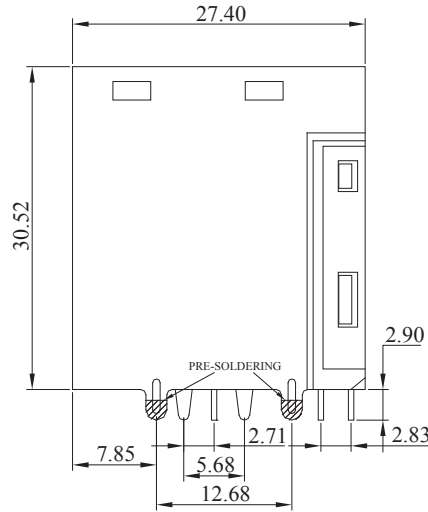
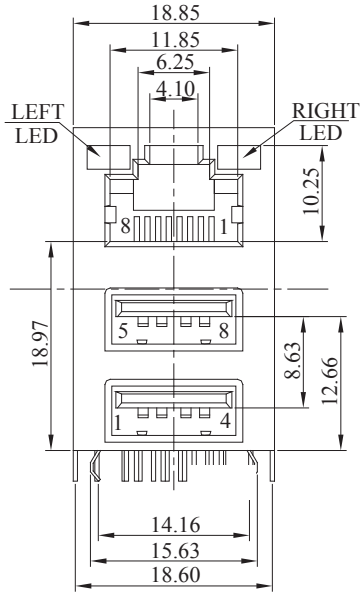
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Compliant



18.85 x 30.52 x 27.40 mm

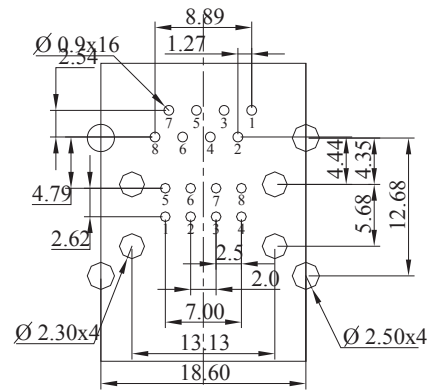
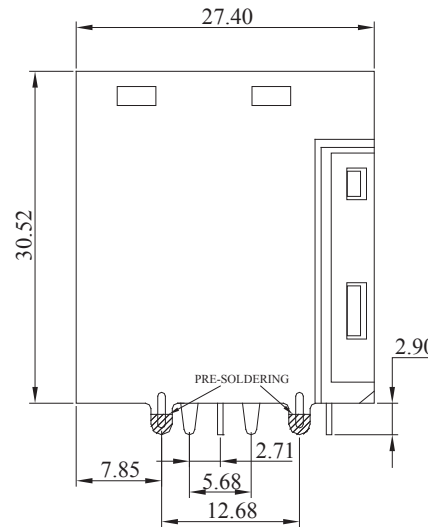
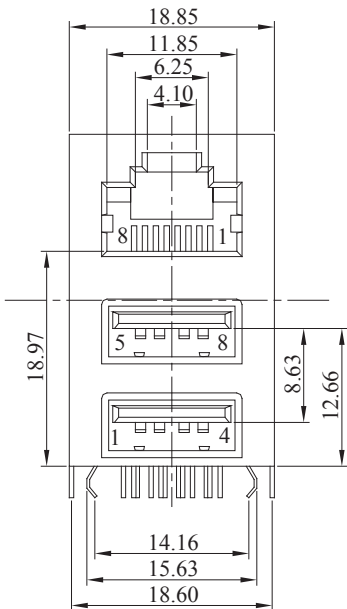
MECHANICAL DIMENSIONS

MA: 8PIN



PC Board Layout
Component Side Shown

MB: 8PIN



PC Board Layout
Component Side Shown

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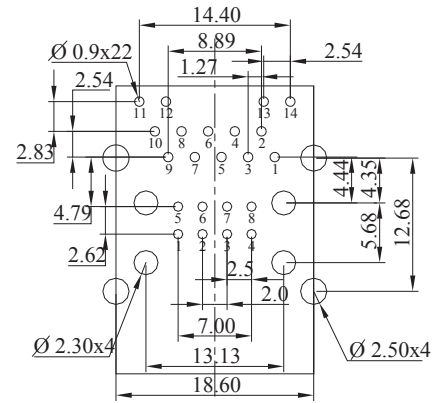
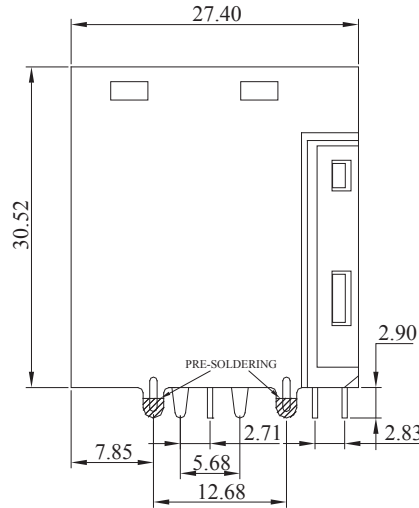
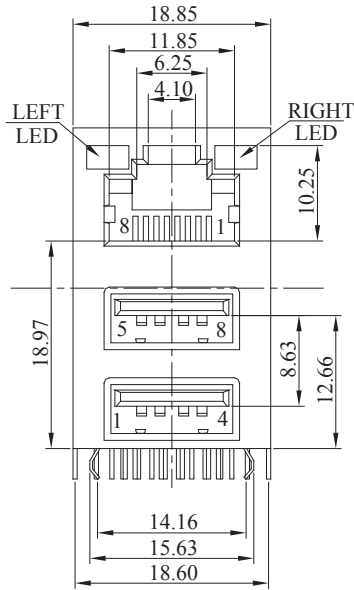
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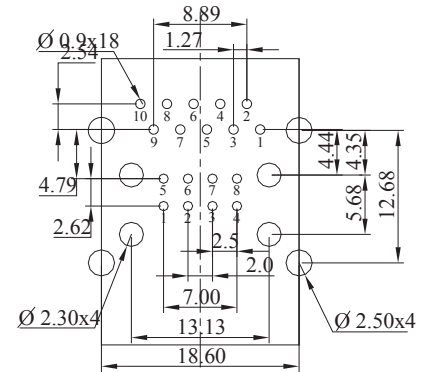
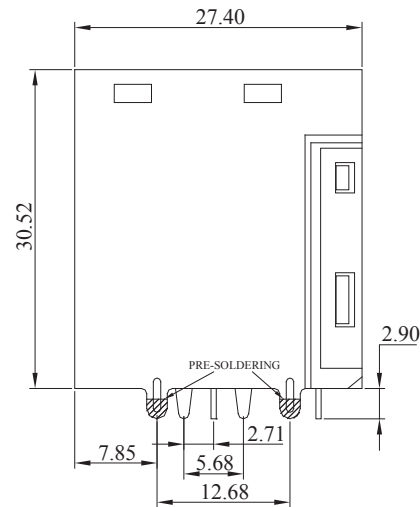
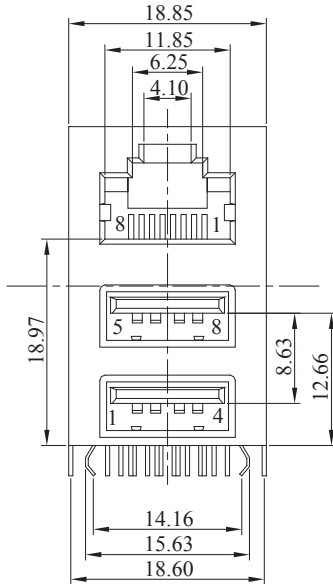
MECHANICAL DIMENSIONS

MC: 10PIN



PC Board Layout
Component Side Shown

MD: 10PIN



PC Board Layout
Component Side Shown

Dimension: mm. All tolerances are ± 0.25 unless otherwise specified

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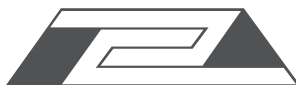
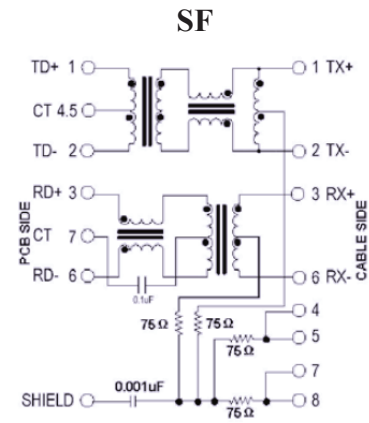
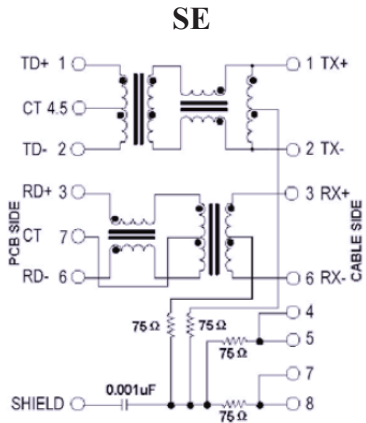
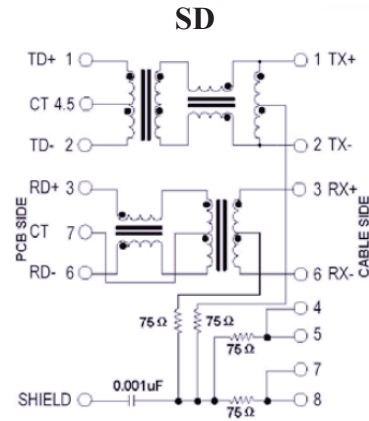
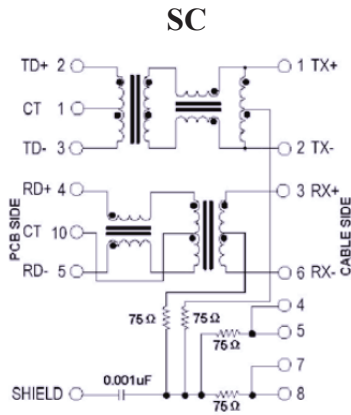
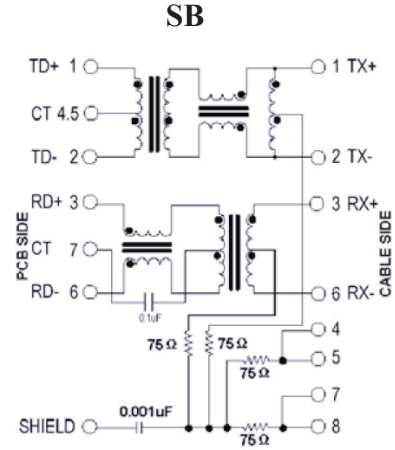
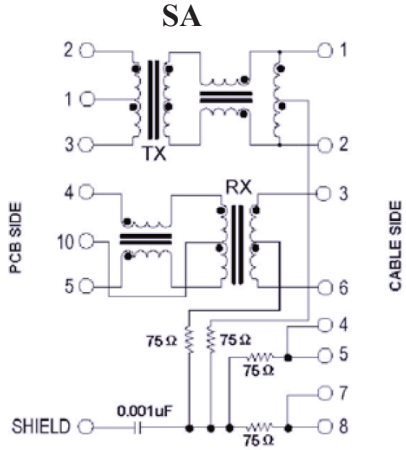
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SCHEMATICS



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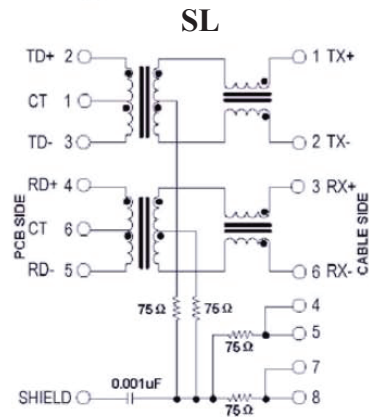
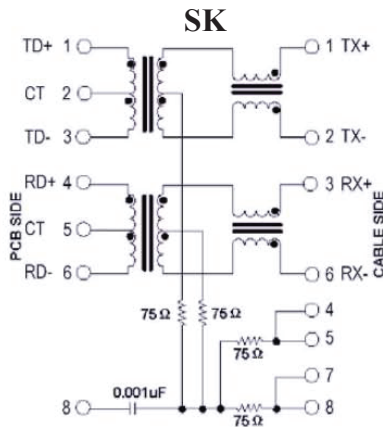
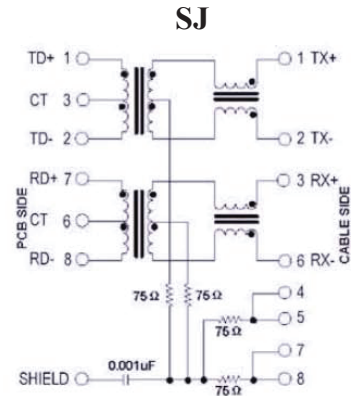
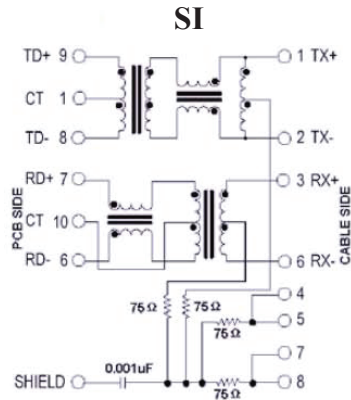
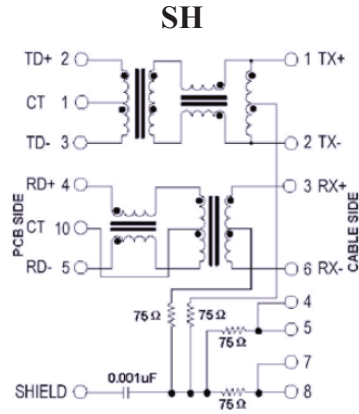
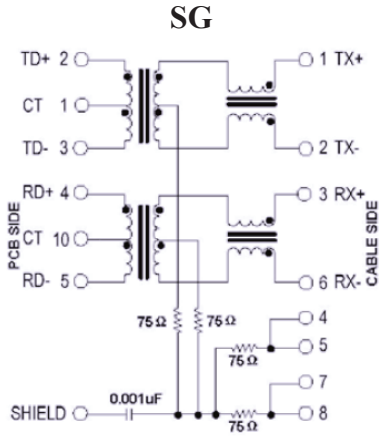
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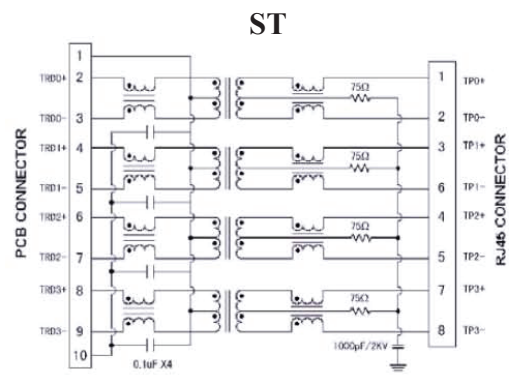
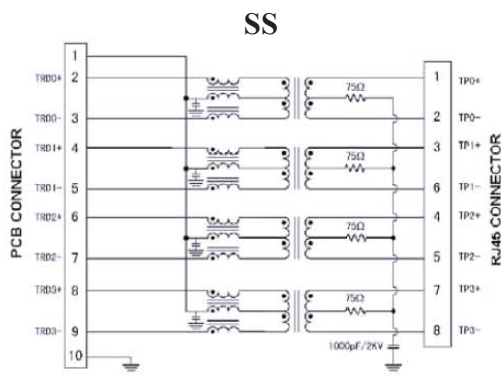
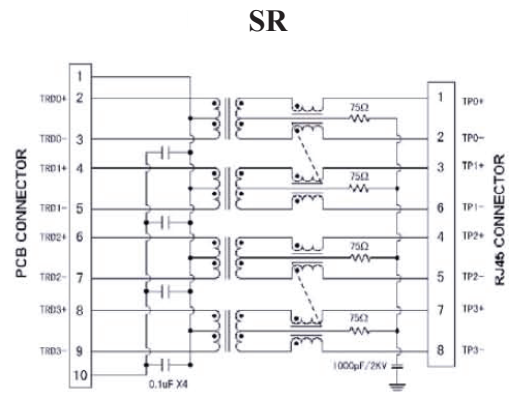
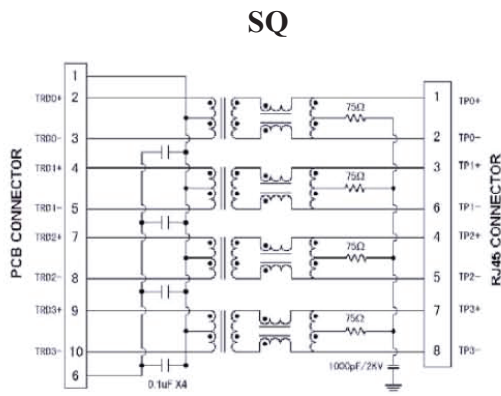
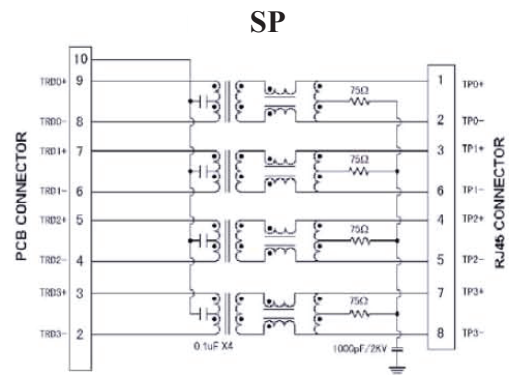
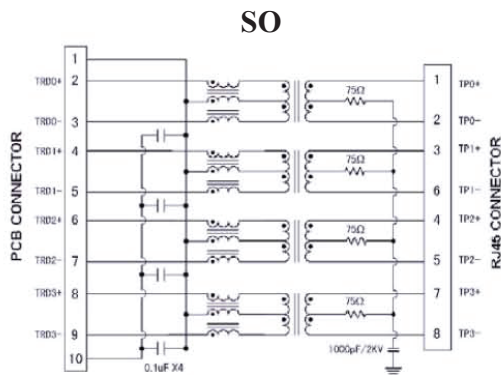
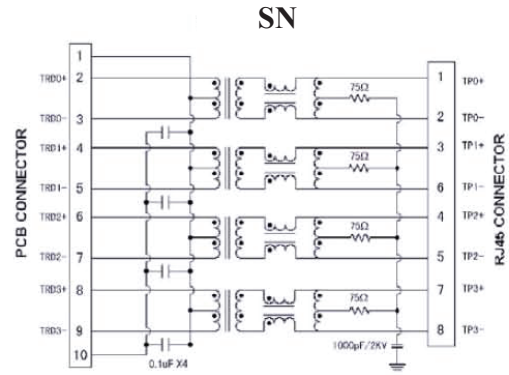
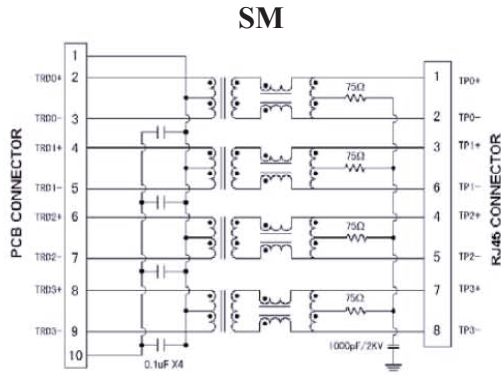
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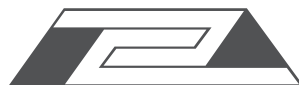


18.85 x 30.52 x 27.40 mm

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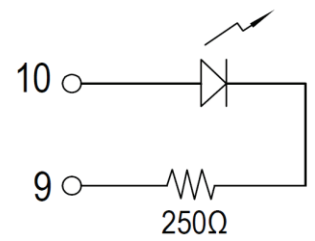
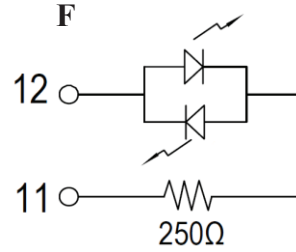
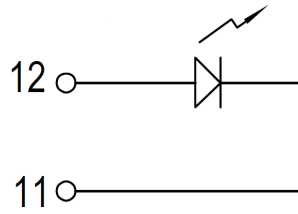
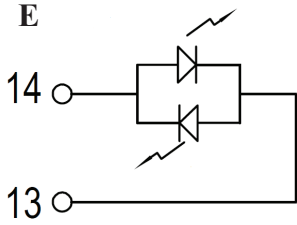
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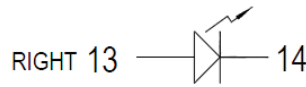
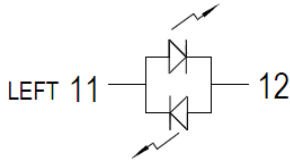


18.85 x 30.52 x 27.40 mm

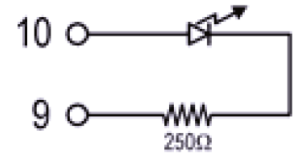
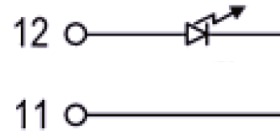
LED POLARITY



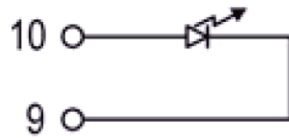
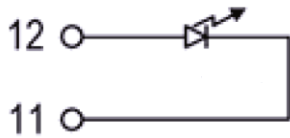
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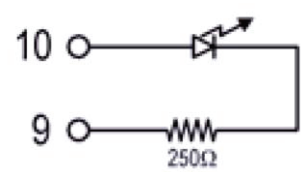
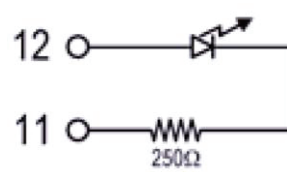
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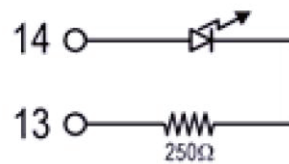
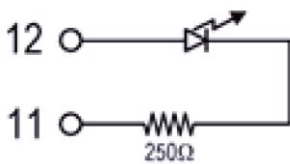
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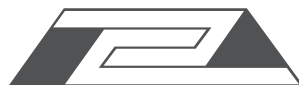
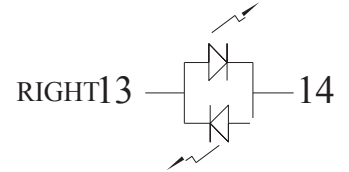
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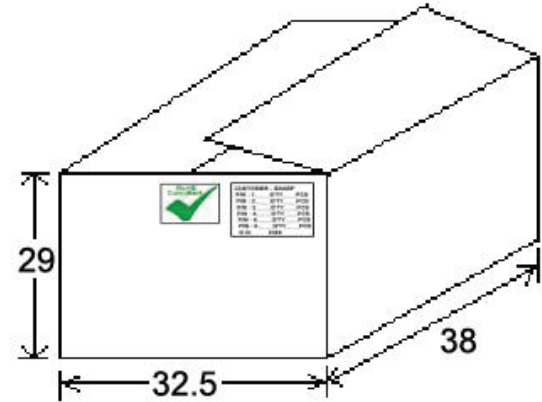
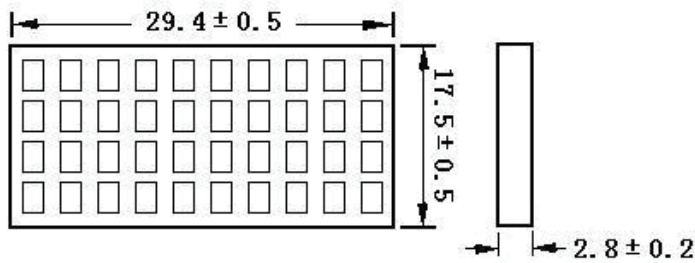


18.85 x 30.52 x 27.40 mm

PACKING: 40pcs/tray

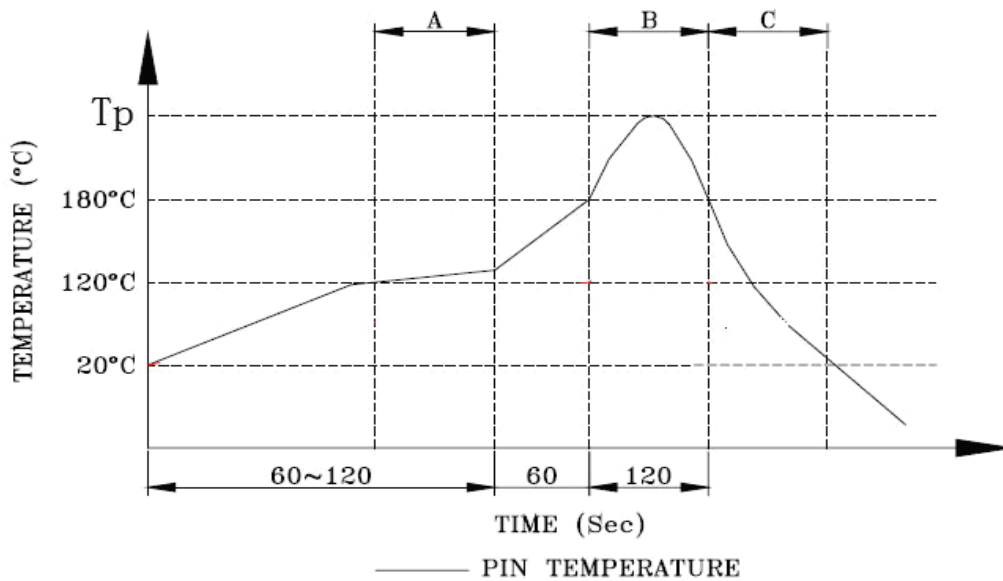
Outer carton unit 640 pcs/ 16 Trays/box

Packaging material: PET



Dimensions: cm

REFLOW PROFILE:



A. Preheating B. Soldering C. Gradual Cooling

Peak temperature(T_p) : $250 \pm 10^\circ\text{C}$

Peak temperature(T_p) time : 5sec max

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