

# 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 ± 5%		EMI Fingers	LEDs L/R	Insertion Loss (dB max) 1 - 100 MHz	Return Loss (dB MIN @100Ω±15Ω)		
	TX	RX				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) @ 60Hz
	1.0 - 10 MHz	32 - 60 MHz	60 - 100 MHz	1 - 50 MHz	50 - 100MHz	
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	-40	-40	-35	-30	-25	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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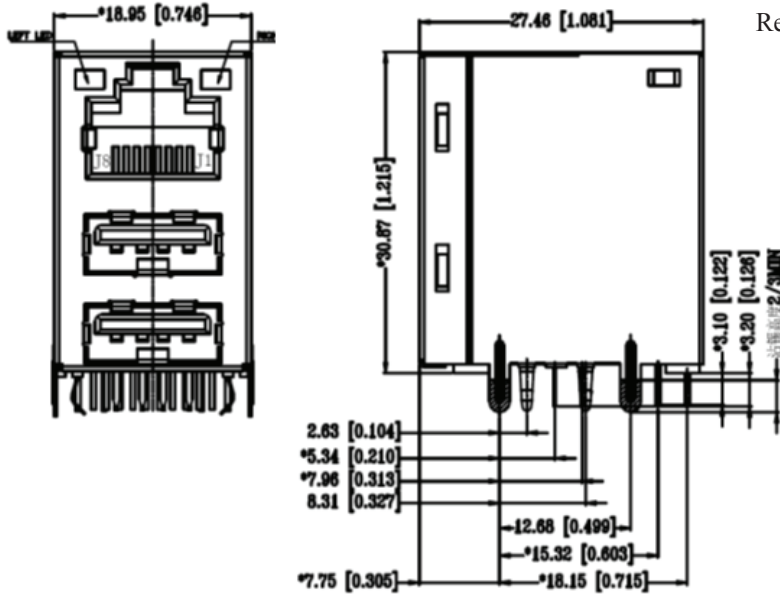
RoHS  
Compliant



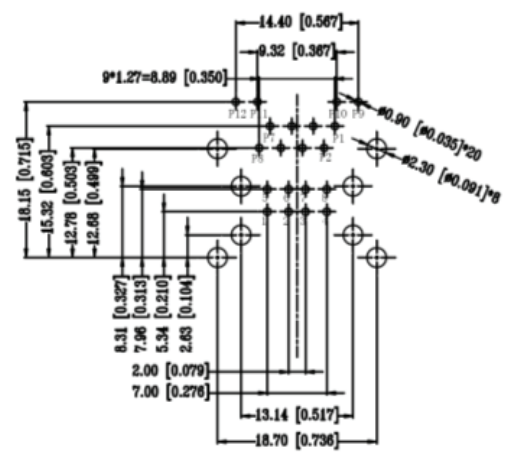
18.85 x 30.52 x 27.40 mm

## MECHANICAL DIMENSIONS

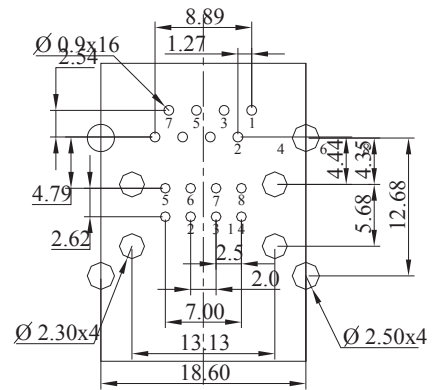
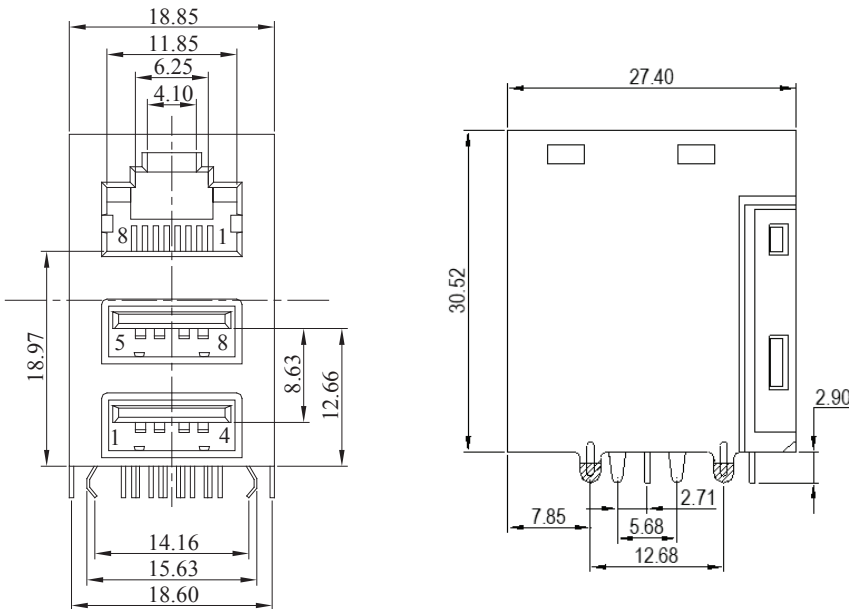
MA: 8PIN



Recommended PWB Layout (Component Side View):



MB: 8PIN



PC Board Layout  
Component Side Shown

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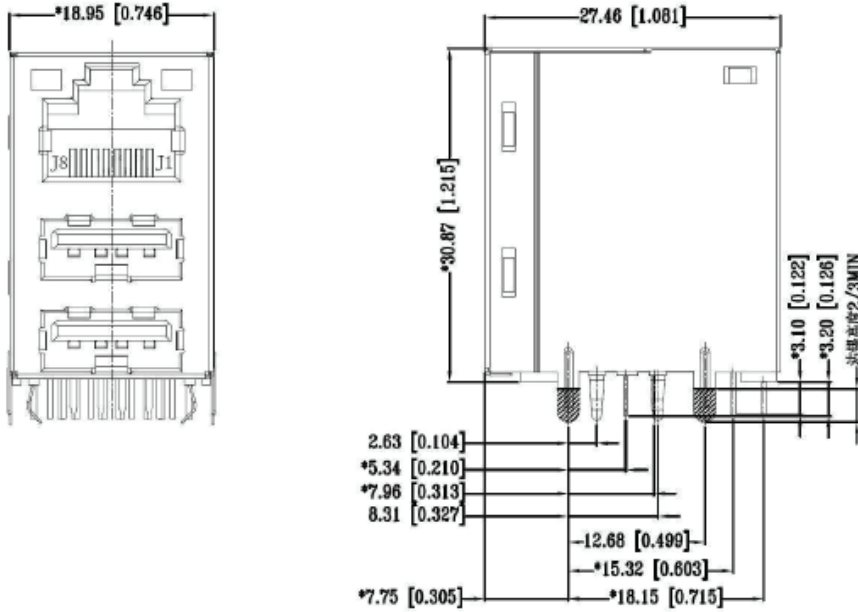
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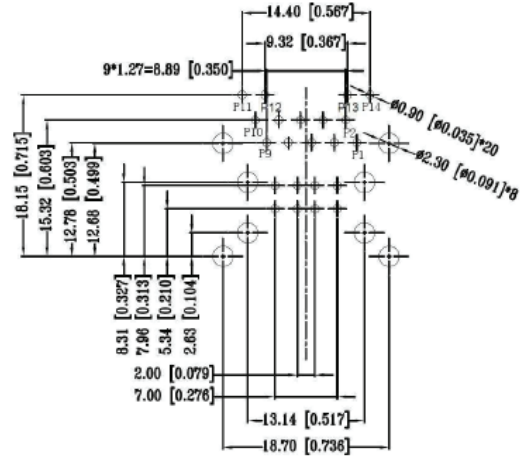
18.85 x 30.52 x 27.40 mm

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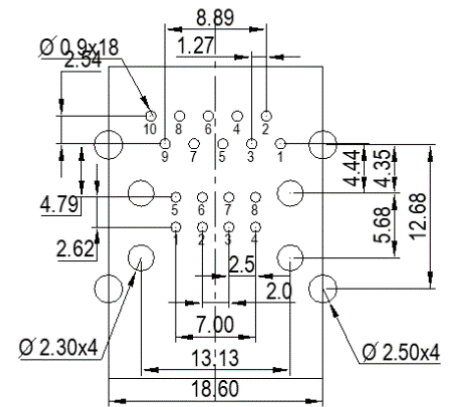
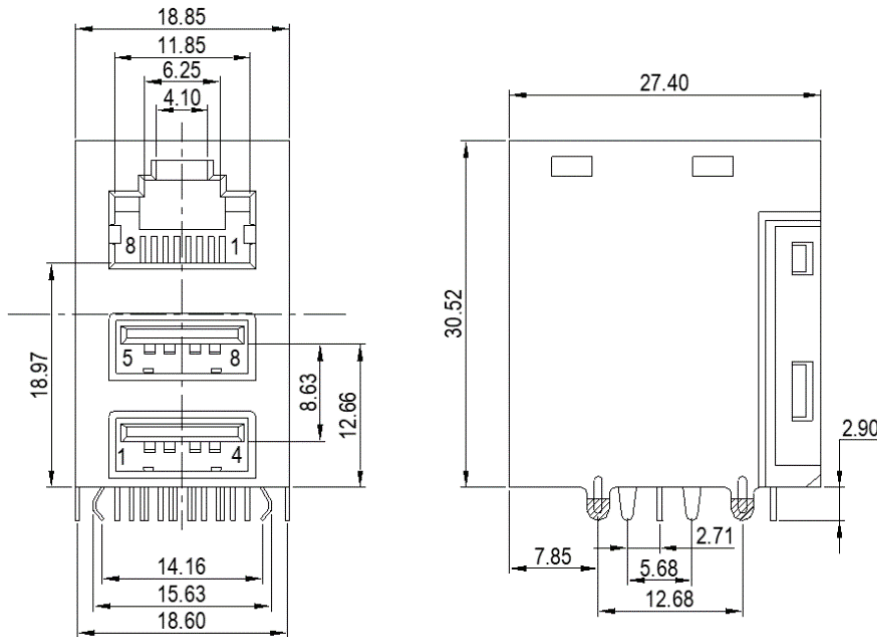
### MC: 10PIN



Recommended PWB Layout (Component Side View):



### MD: 10PIN



PC Board Layout  
Component Side Shown

Dimension: mm. All tolerances are  $\pm 0.25$  unless otherwise specified

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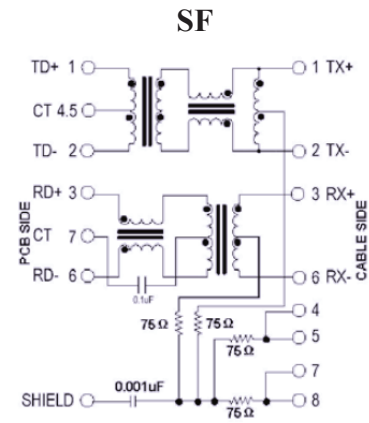
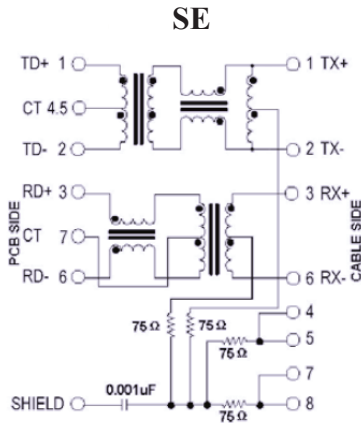
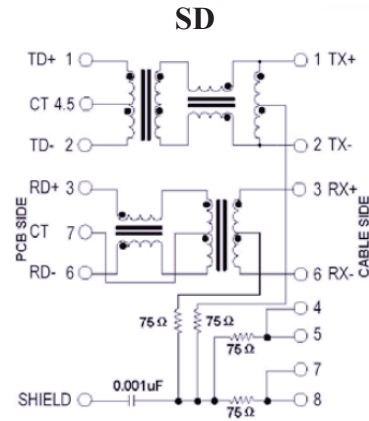
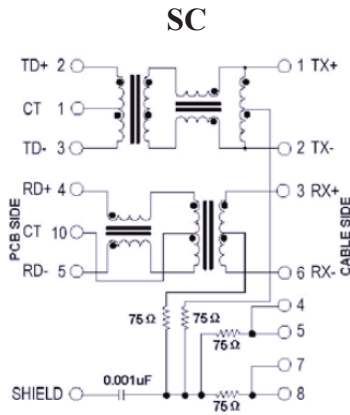
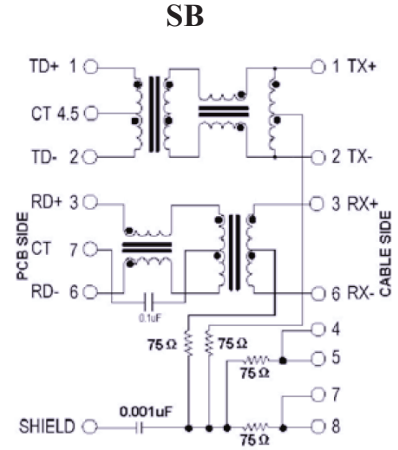
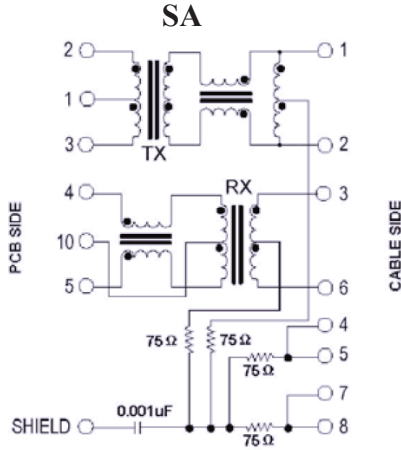
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## SCHEMATICS



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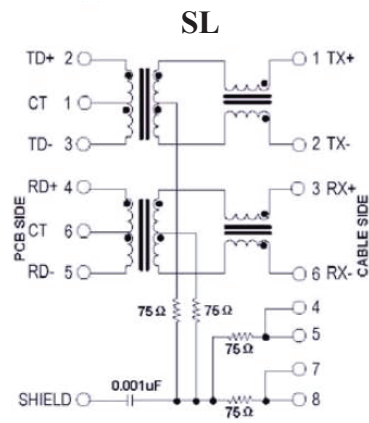
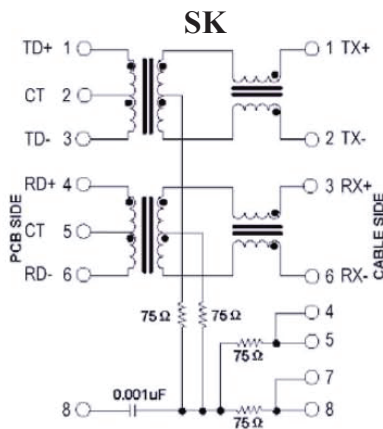
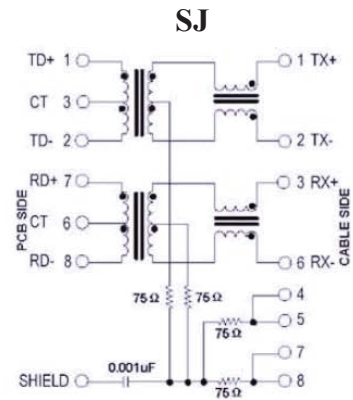
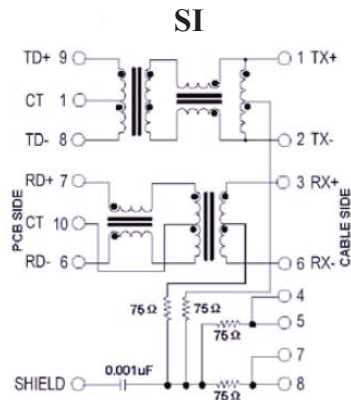
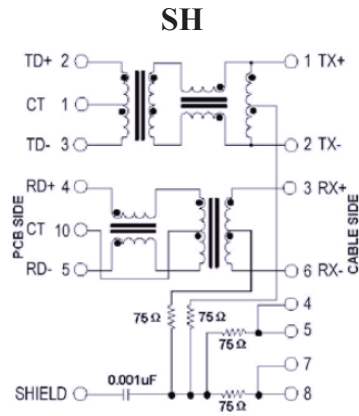
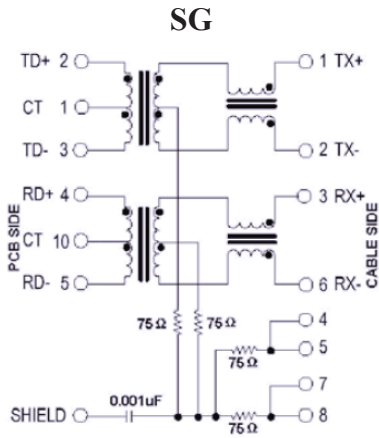
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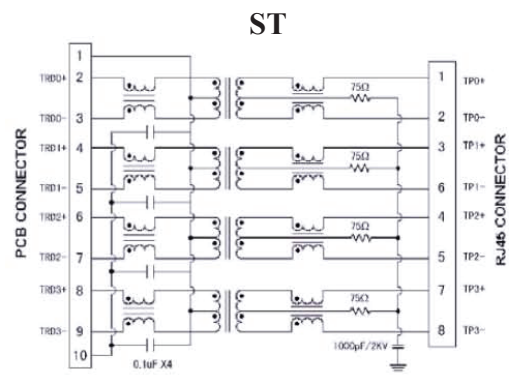
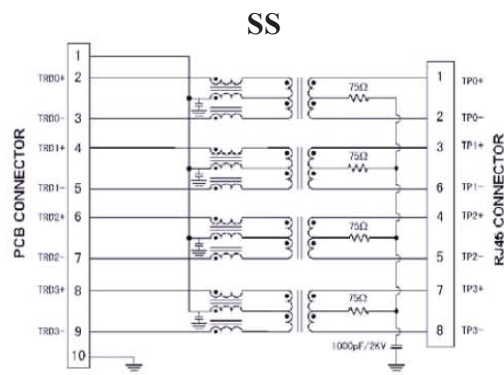
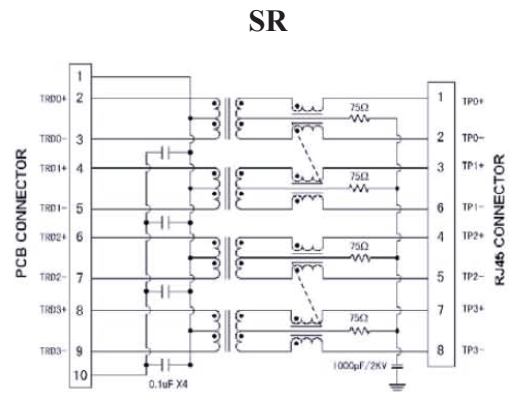
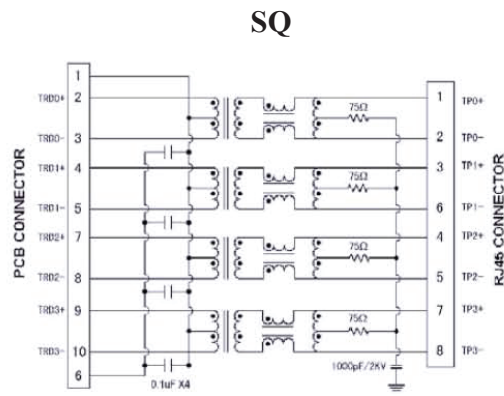
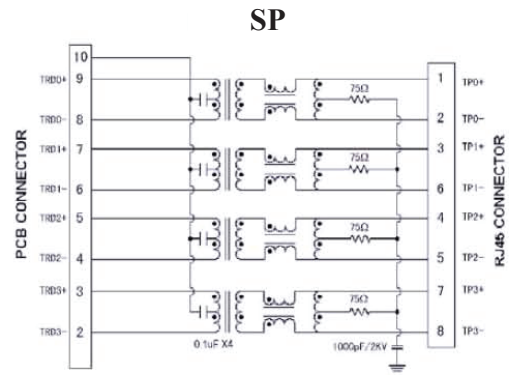
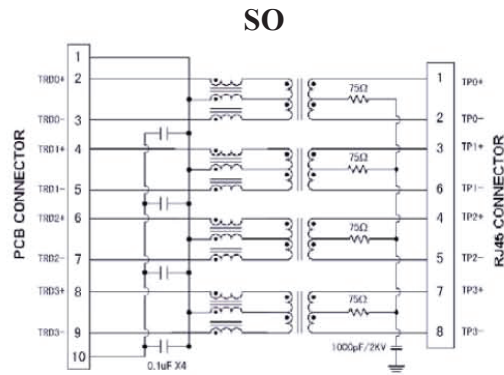
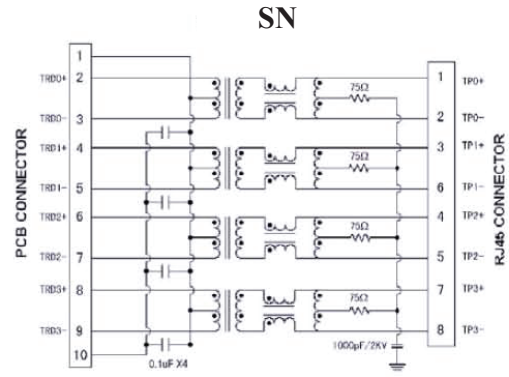
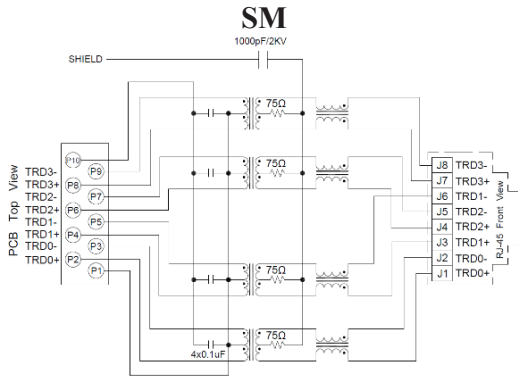
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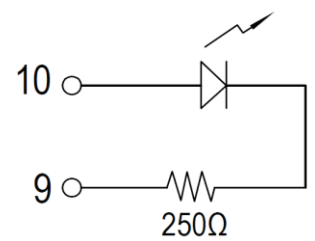
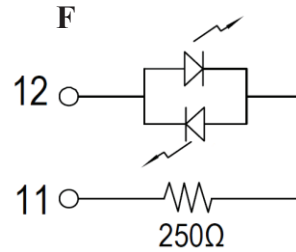
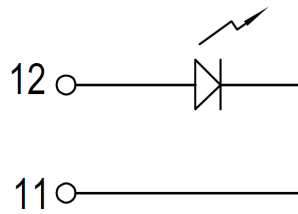
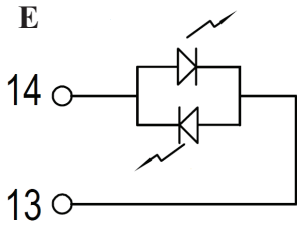
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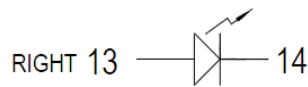
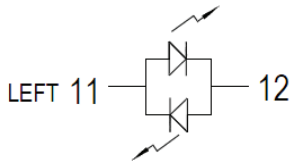


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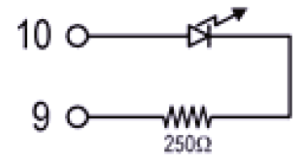
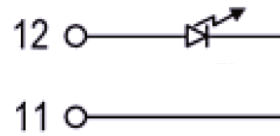
## LED POLARITY



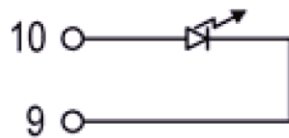
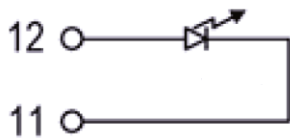
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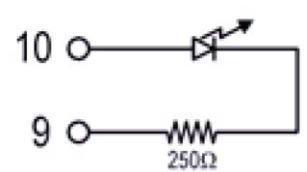
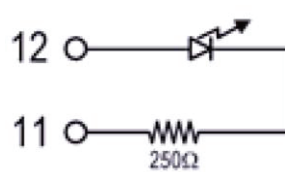
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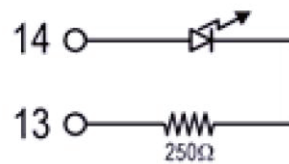
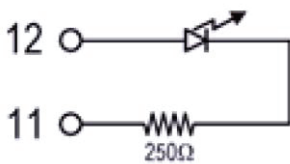
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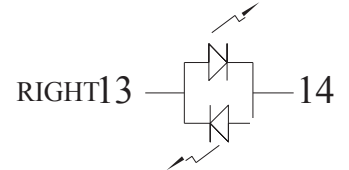
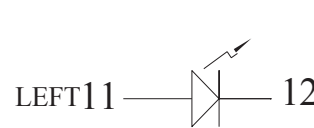
**J**



**K**



**L**



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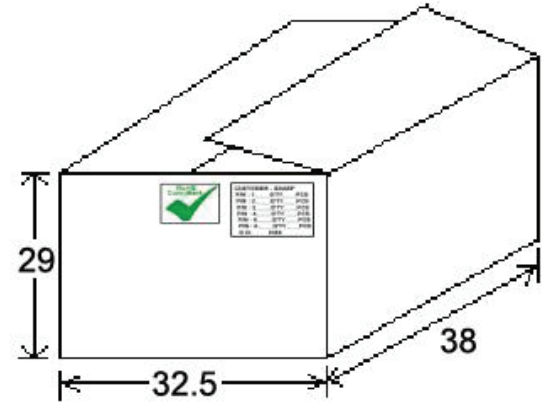
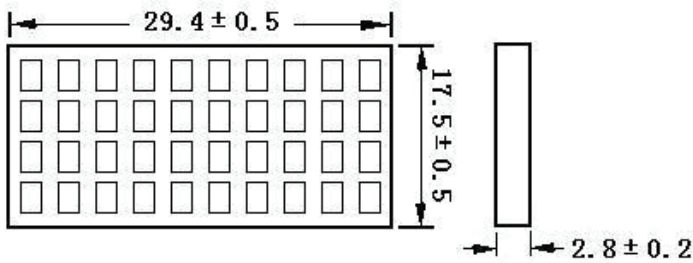


18.85 x 30.52 x 27.40 mm

PACKING: 40pcs/tray

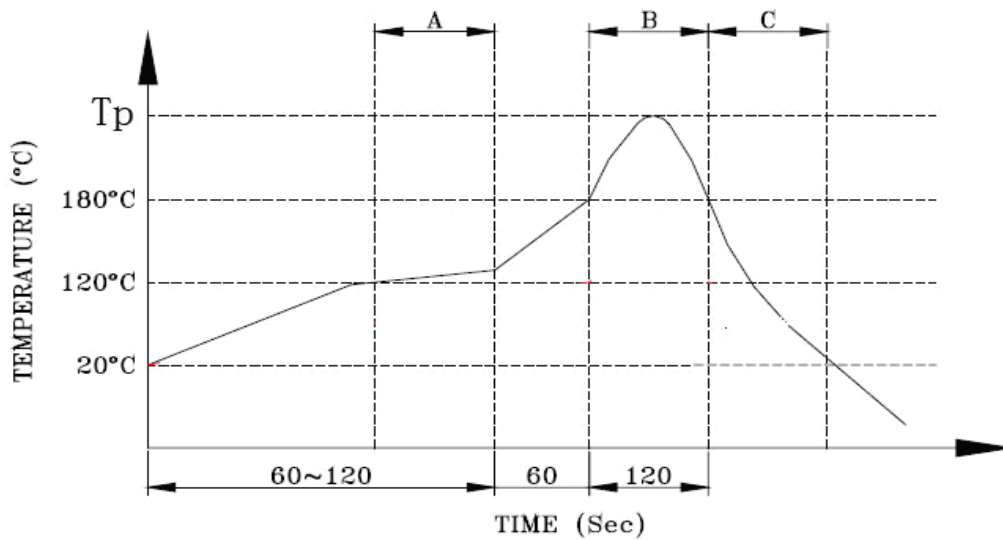
Packaging material: PET

Outer carton unit 560 pcs/ 14 Trays/box



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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