

# RJ45 10 Base-T Jack with Magnetic Module

ARJ11A

RoHS/RoHS II Compliant



16.26 x 13.84 x 21.59mm

## FEATURES:

- Available with or without LED
- Suitable CAT 5 & 6 cable and UTP
- Comply IEEE 802.3ab
- LAN Magnetic with RJ4
- Suitable for RoHS compliant reflow

## APPLICATIONS:

- 10Base-T LAN
- NIC, LoM and PC

## STANDARD SPECIFICATIONS at 25°C

Operating temperature range: 0°C to +70°C Storage temperature range: -40°C to +125°C

| Part Number          | Turns Ratio<br>TX/RX (±5%) | EMI<br>fingers | LED<br>(L/R) | Insertion Loss (dB Max) |  |
|----------------------|----------------------------|----------------|--------------|-------------------------|--|
|                      |                            |                |              | 1-10MHz                 |  |
| ARJ11A-MASA-KT-2     | 1CT:1.41/1CT:1             | No             | ---          | -1                      |  |
| ARJ11A-MASA-MU-2     | 1CT:1CT/1CT:1CT            | No             | ---          | -1                      |  |
| ARJ11A-MBSC-A-B-FMU2 | 1CT:1CT/1CT:1CT            | No             | G/Y          | -1                      |  |
| ARJ11A-MASD-MU-2     | 1CT:1CT/1CT:1CT            | No             | ---          | -1                      |  |
| ARJ11A-MASE-MU2      | 1CT:1CT/1CT:1CT            | No             | ---          | -1                      |  |
| ARJ11A-MASF-LT2      | 1CT:1/1CT:1                | No             | ---          | -1                      |  |
| ARJ11A-MASG-LT2      | 1CT:1/1CT:1                | No             | ---          | -1                      |  |
| ARJ11A-MASH-KU2      | 1.414:1CT/1CT:1CT          | No             | ---          | -1.15                   |  |
| ARJ11A-MCSI-B-A-EKU2 | 1CT:1.41CT/1CT:1CT         | Yes            | Y/G          | -1                      |  |
| ARJ11A-MASJ-MU2      | 1CT:1CT/1CT:1CT            | No             | ---          | -1                      |  |
| ARJ11A-MASK-PU2      | 1:2CT/1CT:1CT              | No             | ---          | -1.15                   |  |
| ARJ11A-MASL-QU2      | 1:1.414CT/1CT:1CT          | No             | ---          | -1.15                   |  |
| ARJ11A-MASM-RT2      | 1CT:2.5/1CT:1              | No             | ---          | -1                      |  |
| ARJ11A-MDSN-MU2      | 1CT:1CT/1CT:1CT            | Yes            | ---          | -1                      |  |
| ARJ11A-MDSO-MU2      | 1CT:1CT/1CT:1CT            | Yes            | ---          | -1                      |  |

| Part Number          | Attenuation TX/RX (dBMIN) |         |         |         | Return Loss<br>TX & RX<br>@100Ω±15Ω<br>(dB MIN) |             | Crosstalk<br>(dB MIN) | CMR<br>(dB MIN) | Hipot<br>(Vrms)<br>0.5mA,<br>2sec |
|----------------------|---------------------------|---------|---------|---------|-------------------------------------------------|-------------|-----------------------|-----------------|-----------------------------------|
|                      | 20MHz                     | 25MHz   | 30MHz   | 40MHz   | 1-10<br>MHz                                     | 5-<br>10MHz | 1-10MHz               | 30MHz           | 1500                              |
| ARJ11A-MASA-KT-2     | -7/-5                     | -18/-11 | -28/-16 | -33/-26 | —                                               | -13.5       | -30                   | -30             | 1500                              |
| ARJ11A-MASA-MU-2     | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                               | -13.5       | -30                   | -30             | 1500                              |
| ARJ11A-MBSC-A-B-FMU2 | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                               | -14         | -30                   | -30             | 1500                              |
| ARJ11A-MASD-MU-2     | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                               | -15         | -30                   | -30             | 1500                              |
| ARJ11A-MASE-MU2      | —                         | —       | -30/-20 | —       | -15                                             | —           | -30                   | —               | 1500                              |
| ARJ11A-MASF-LT2      | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                               | -13.5       | -30                   | —               | 1500                              |
| ARJ11A-MASG-LT2      | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                               | -15         | -30                   | —               | 1500                              |
| ARJ11A-MASH-KU2      | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                               | -17 Typ     | -30                   | -30             | 1500                              |
| ARJ11A-MCSI-B-A-EKU2 | —                         | —       | -30/-18 | —       | -15                                             | —           | -30                   | —               | 1500                              |
| ARJ11A-MASJ-MU2      | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                               | -17 Typ     | -30                   | -30             | 1500                              |
| ARJ11A-MASK-PU2      | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | -13.5                                           | —           | -30                   | -30             | 1500                              |
| ARJ11A-MASL-QU2      | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | -13.5                                           | —           | -30                   | -30             | 1500                              |
| ARJ11A-MASM-RT2      | —                         | —       | —       | —       | —                                               | -15         | —                     | -25             | 1500                              |
| ARJ11A-MDSN-MU2      | -7/-6                     | -19/-14 | -30/-20 | -32/-31 | —                                               | -17         | -30                   | —               | 1500                              |
| ARJ11A-MDSO-MU2      | —                         | —       | -30/-18 | —       | -15                                             | —           | -30                   | —               | 1500                              |

CMR: Common Mode Rejection

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

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Revised: 03.06.13

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16.26 x 13.84 x 21.59mm

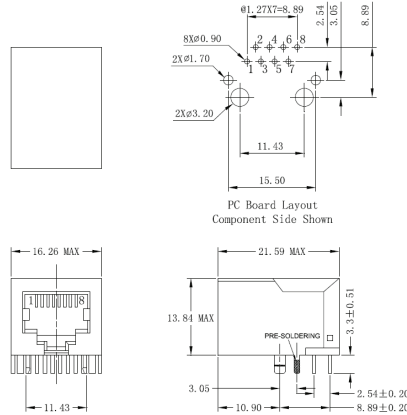
## OPTIONS AND PART IDENTIFICATION

ARJ11A -  -  -  -  -  -  -

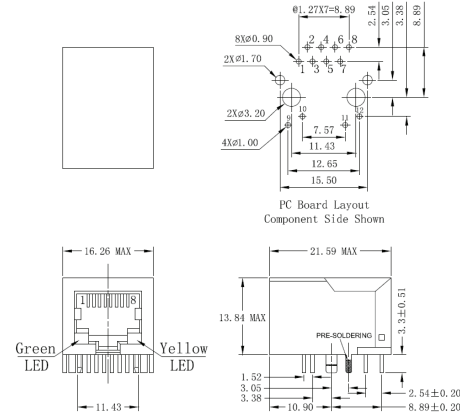
| Mechanical                                 | Schematic                                 | Left LED color<br>(e.g. B for Yellow,<br>AB for Green-Yellow)   | Right LED color<br>(e.g. B for Yellow,<br>AB for Green-Yellow)  | LED polarity                                                    | Turns Ratio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

## MECHANICAL DIMENSIONS

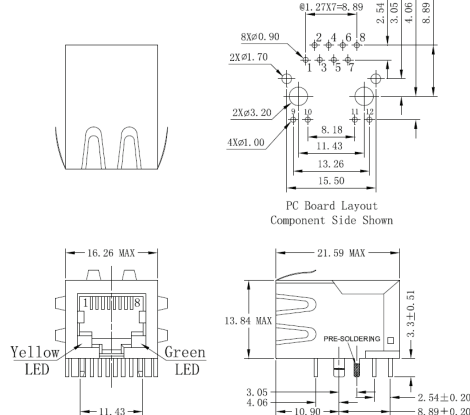
MA



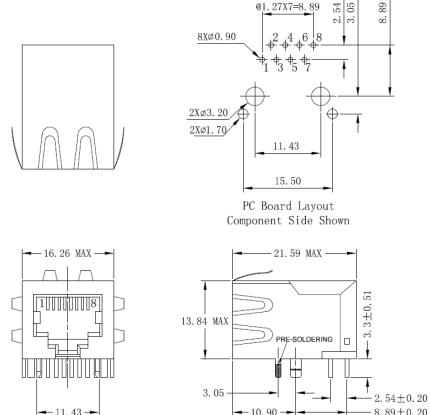
MB



MC



MD



# RJ45 10 Base-T Jack with Magnetic Module

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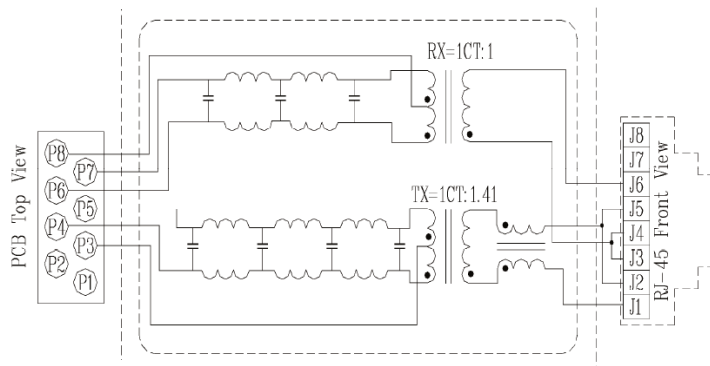
RoHS/RoHS II Compliant



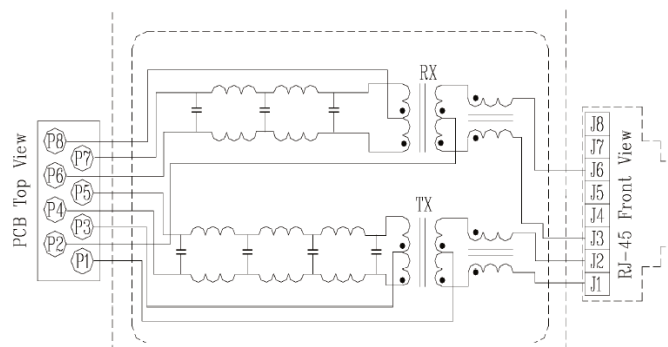
16.26 x 13.84 x 21.59mm

## SCHEMATICS

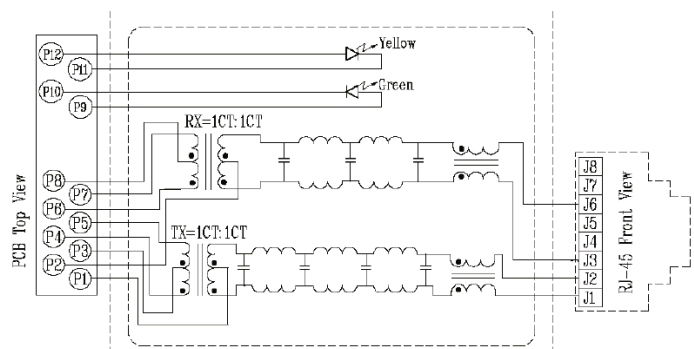
SA



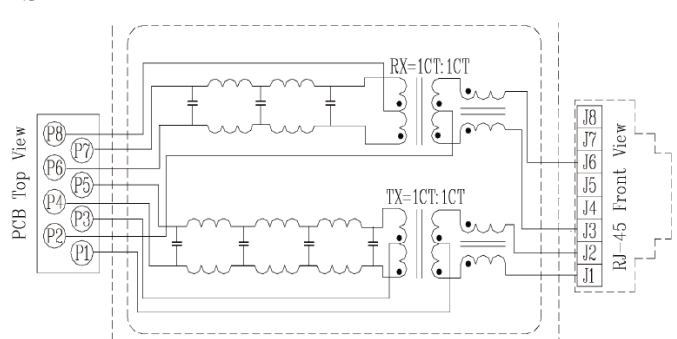
SB



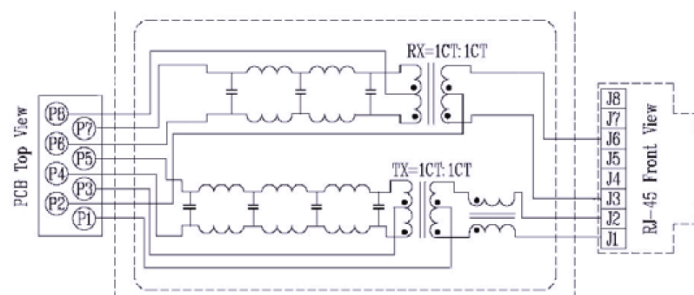
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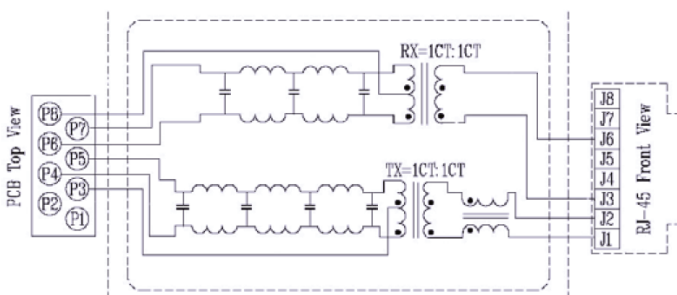
SD



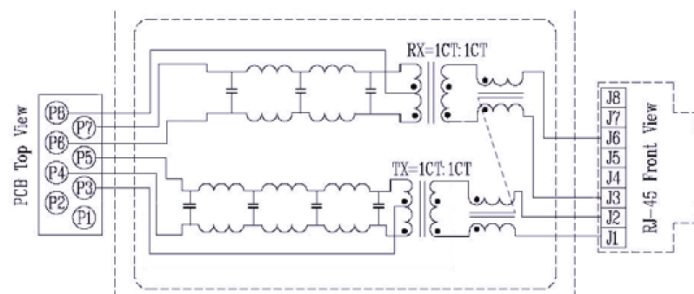
SE



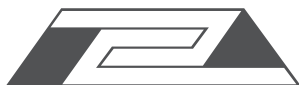
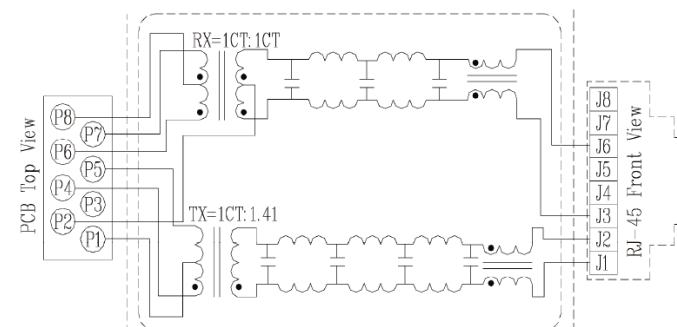
SF



SG



SH



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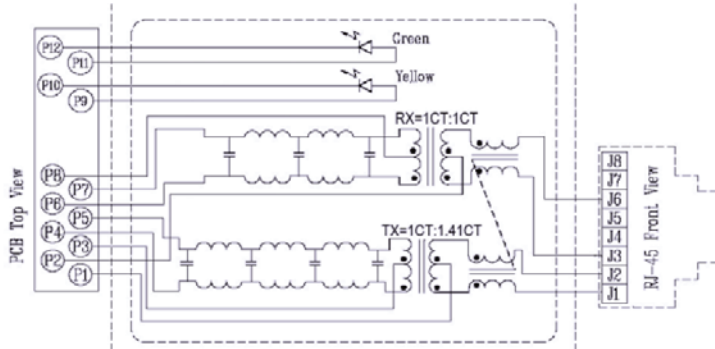
RoHS/RoHS II Compliant



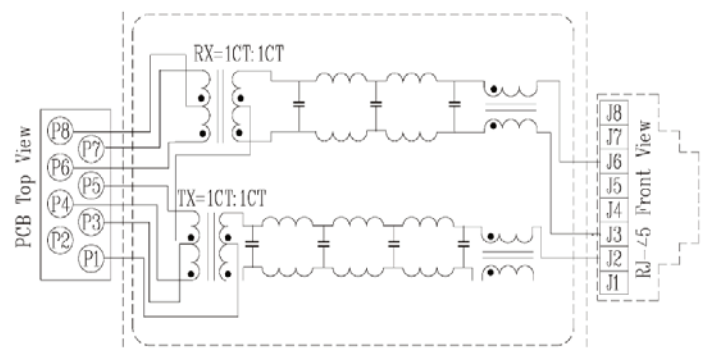
16.26 x 13.84 x 21.59mm

## SCHEMATICS - continued

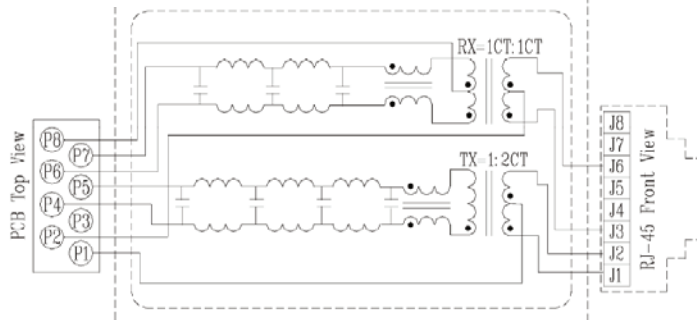
SI



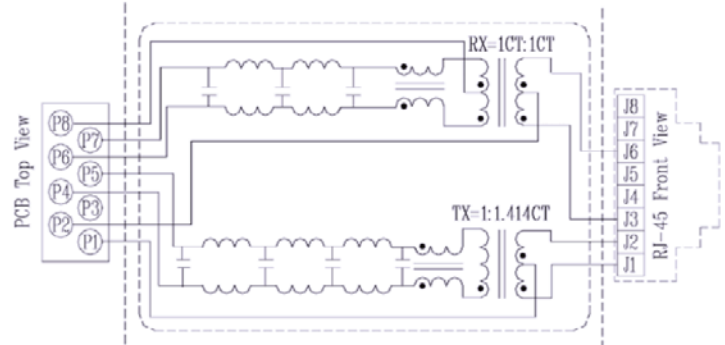
SJ



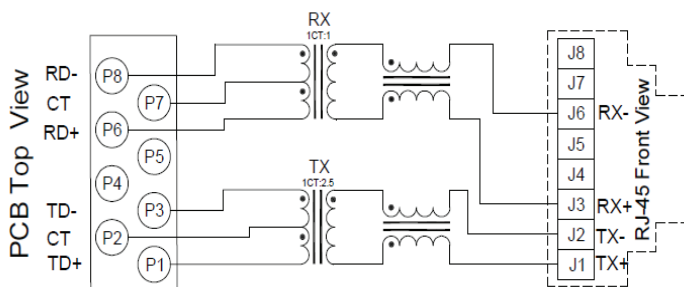
SK



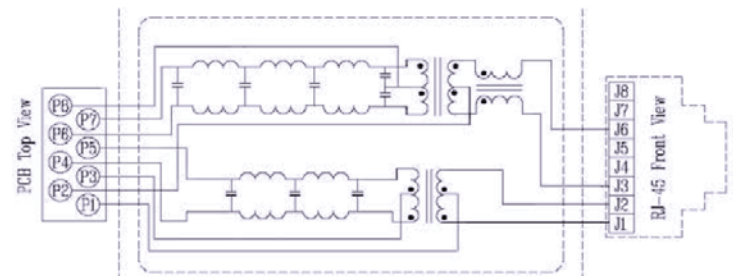
SL



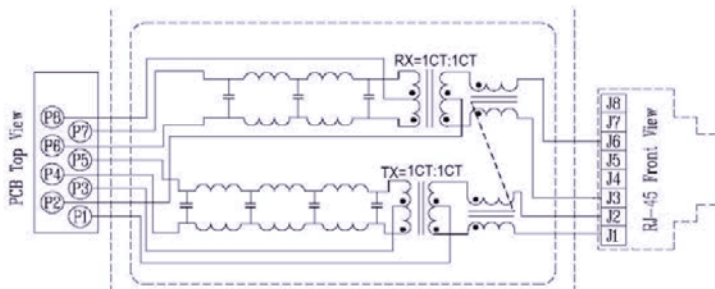
SM



SN



SO



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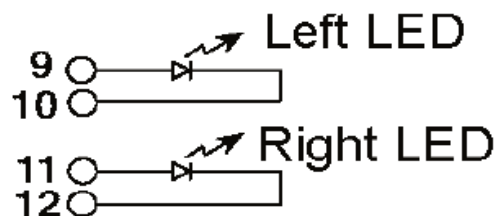
RoHS/RoHS II Compliant



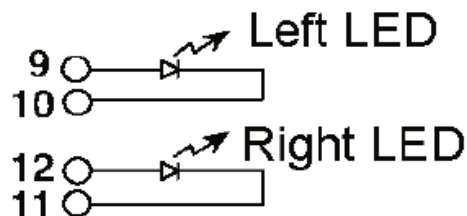
16.26 x 13.84 x 21.59mm

## LED POLARITY

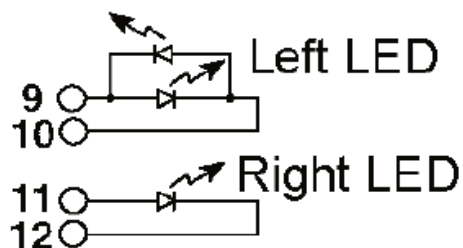
E



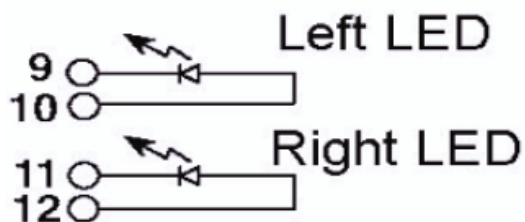
F



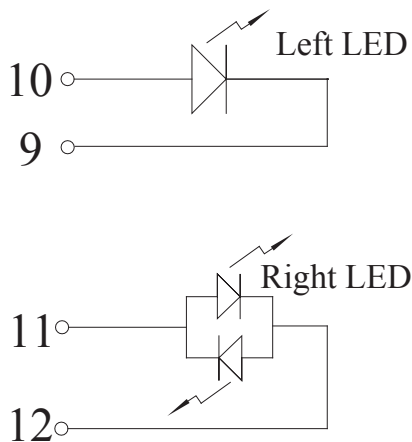
G



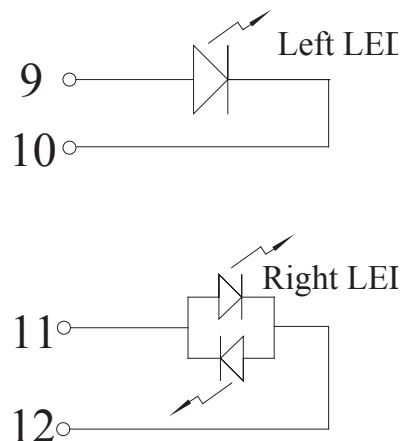
H



I

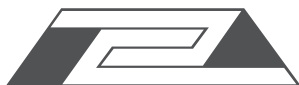


J



$V_{in}=2.1V_{dc}$  TYP.

2.5Vdc MAX.



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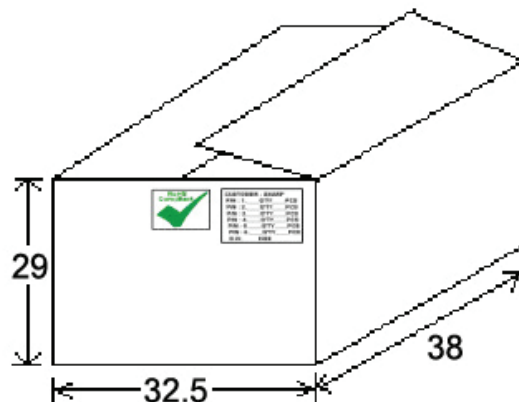
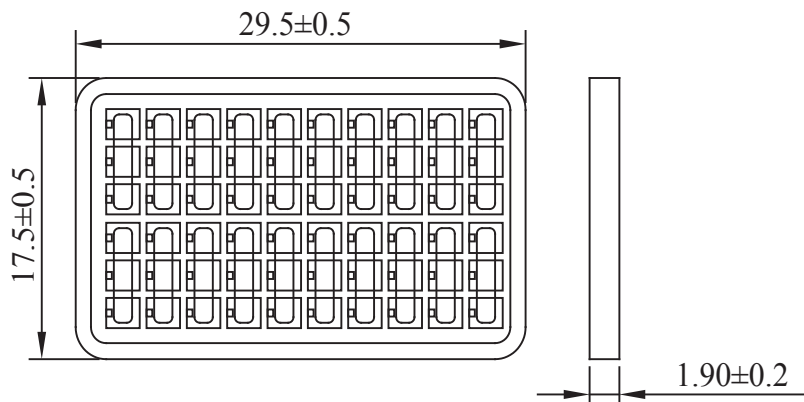


16.26 x 13.84 x 21.59mm

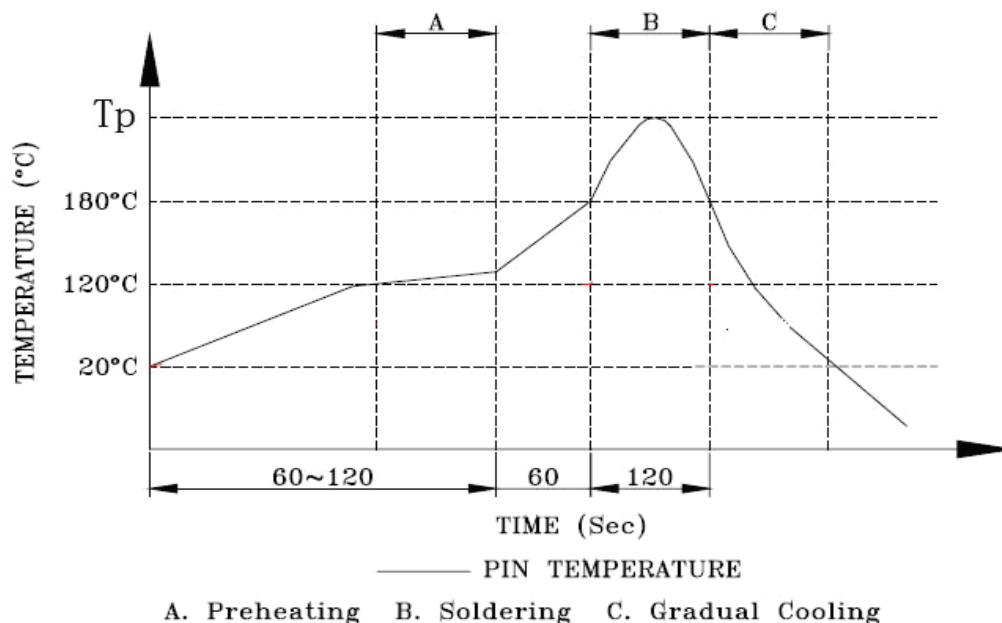
PACKING: 60pcs/tray

Packaging material: PET

Outer carton unit 1320 pcs/ 22 Trays/box



REFLOW PROFILE:

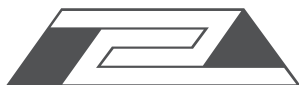


Peak temperature(Tp) : 250± 10°C

Peak temperature(Tp) time : 5sec max

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Revised: 03.06.13