Low Profile Connectors for AC power supply

RP34L Series





Features

1. Low profile

Receptacles are designed with their installation heights to be shorter than those of conventional RP34 series.

2. Space saving

Both 2 and 3 position receptacles are miniaturized to 7mm length, resulting in a small board mounting area.

3. Snap-lock mechanism

Audible click when connector is fully mated.

4. Precise mated connection

Secure hold of the plug on au 3 axis.

5. Sequence mating

The 3 contact type has sequenced mating. One pin makes contact as a ground terminal before the other contacts.

6. No Mismating

Two polarized keys prevent any insertion error.

7. Ease of Mating

An arrow on the top of the plug shows the proper direction for insertion.

Applications

Notebook PCs, portable remote terminals, AV equipment, etc.

Mated dimensions





This 2 contact plug is an over-molded (i.e., cable-integrated form) type. Recommended cable diameter is $3.5 \mathrm{mm}$ dia.



Product Specifications

| Ratings | Current rating | 5A | Operating temp. range | -25℃~+85℃ |
|---------|----------------|----------------|-----------------------|-----------|
| | Voltage rating | 30V AC, 42A DC | Storage temp. range | -10℃~+60℃ |

| Item | Specification | Conditions |
|-------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1.Contact resistance | 30mΩ or max. | 1A DC |
| 2.Insulation resistance | 1000mΩ min. | 100V DC |
| 3.Withstanding voltage | No flashover or insulation breakdown | 150V AC/1 minute |
| 4.Vibration | No electric disconnection of 10µs or more | 10~55Hz, one-sided amplitude 0.75mm, 3 directions for 2hours, respectively |
| 5.Temperature cycle | Insulation resistance:100m Ω min. | -55℃ for 30 min.→normal temp. for 10~15 min.→+85℃ for 30 min.→normal temp. for 10~15 min. 5 cycles |
| 6.Salt spray | No corrosions | 5% salt water solution, 48 hours |
| 7.Durability | Contact resistance:60mΩ max. | 5,000 mating / un-mating |

Material

| Component | | Material | Finish / Color | Remarks |
|-----------|-------------|-----------------|-------------------|---------|
| 2 pos. | Metal comp. | Phosphor bronze | Solder-plating | |
| | Insulator | Nylon | Black | UL94HB |
| | Contacts | Brass | Palladium-plating | |
| 2 pos. | Cover | Vinyl chloride | Black | UL94V-0 |
| | Insulator | Nylon | Black | UL94HB |
| | Contacts | Phosphor bronze | | |
| 3 pos. | Metal comp. | Phosphor bronze | Solder-plating | |
| | Insulator | PPS | Black | UL94V-0 |
| | Contacts | Brass | Palladium-plating | |
| 3 pos. | Cover | Polycarbonate | Black | UL94V-0 |
| | | Vinyl chloride | Black | UL94V-0 |
| | Insulator | PPS | Black | UL94V-0 |
| | Contacts | Phosphor bronze | Palladium-plating | |

(****)

Ordering information

$\frac{\mathsf{RP34L}}{\bullet} - \frac{5}{\bullet} \frac{\mathsf{PA}}{\bullet} - \frac{2}{\bullet} \frac{\mathsf{SC}}{\bullet}$ 6 Series name: RP34L 4 Number of contacts: Shell: Shell.size, 5 2, 3 **6** Type: **6** Type of contact: PD: through hole male contact Receptacle: R Assembled straight plug: P SC: crimp female contact Assembled right angle plug: LP 6 Cable length:(****) depends on Cable ass'y, straight plug: PA each cable (mm).

■Receptacles ●2 pos.

RP34L-5R-2PD(71)









•3 pos. RP34L-5R-3PD(71)



Recommended panel cutout

plug

panel

1.3 -01

2.12土0.05

(1.2)

printed circuit board







| Part Number | CL No. | RoHS | |
|------------------|---------------|------|--|
| RP34L-5R-2PD(71) | 113-5154-6-71 | VES | |
| RP34L-5R-3PD(71) | 113-5157-4-71 | YES | |

Cable assembly

7.8

6.1

22.4

4.8

Plugs





1 8 5 7

1800

Α-

2.5

5.5

21.5

board-in crimp terminal

4

7.6

ц,



RP34L-5PA-2SC(1857)(71)



(outer shell)

7.8

| Part Number | CL No. | RoHS |
|-------------------------|---------------|------|
| RP34L-5PA-2SC(1857)(71) | 113-5153-3-71 | |
| RP34L-5PA-3SC(71) | 113-5178-4-71 | YES |
| RP34L-5LP-3SC(71) | 113-5161-1-71 | |

■RP34L-5LP-3SC(71)

Crimp contact





| Part Number | CL No. | RoHS |
|-------------------|---------------|------|
| RP34L-SC1-212(01) | 113-5151-8-01 | YES |

Applicable Tools

| Туре | | Part Number | CL No. | Applicable contact | Applicable conductor |
|----------------------|--------------|----------------------|------------|--------------------|----------------------|
| Manual crimping tool | | HT-102/RP34L-SC1-212 | | RP34L-SC1-112(01) | AWG#18~#22 |
| Crimper | Automatic | CM-105 | 901-0005-4 | | |
| | Crimper body | AP105-RP34L-SC1-212 | 901-2043-4 | RP34L-SC1-212(01) | AWG#18~#22 |
| Cable crimping tool | | RP34-TC-01 | 150-0074-1 | | <i>ф</i> 4 |
| Drawing tool | | RP6-SC-TP | 150-0039-0 | | |

Assembly Instructions(3-Position Plug)

Straight Plug





Right Angle Plug



- 1. Slide the bushing over the cable.
- 2. Prepare the cable end and the conductors as shown.
- 3. Crimp the contacts to each conductor. Verify the crimp dimensions.
- 4. Insert each of the contacts into the insulator body. Verify that the contact is secure by slightly pulling on the conductor. Should the contacts require reinsertion, use the tool RP6-SC-TP to remove them (Inserted from the termination side).
- 5. Crimp the cable clamp over the cable at designated dimension (Tool number:RP34-TC-01).
- 6. Place the outer case on a flat surface , with inside facing up.
- 7. Carefully place the insulator body, clamp and the bushing into corresponding indents and cut-outs in the outer case. Verify correct location. (As shown on drawing)
- Note A: When placing all components in the case, exercise caution as NOT to damage any of the protruding snap.
- Note B: All components should fit easily, without use of any force.
- 8. Carefully align the other outer case over all components case. Do not force alignment.
- 9. Snap the case in place.

1. The right angle plug can also be assembled by using the same procedure as the straight plug.

Precautions

1. Use the connector section with its panel held down so as not to have excessive load. For 2-contact type, hold the outer shellsection of the receptacle, and for 3 contact type, the outer shell section of the plug.



2. After connector assembly, cable must not be pulled over 30N in the arrow-indicated direction. Be careful not to add excessive tensile load because it will lead the damage of connectors.

