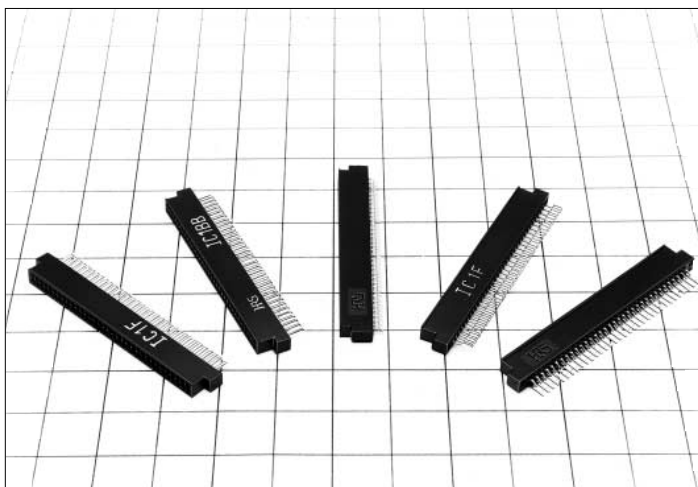


# PC Card Socket Connector Complies with PC card Standard

## IC1 Series



### ■Features

#### 1. Compliant with PC Card Standards

Polarized entry prevents wrong insertion into a corresponding connector. And sequential contact engagement prevents electrostatic discharge, avoiding possible damage to sensitive board circuits.

#### 2. Suited to Automatic Mounting

Packaged for a board placement with automated equipment.

#### 3. Lead Offset

Available with several board termination levels, to allow use of different height board components.

In relation to the center line of connector, -0.2 mm, +0.3 mm, +0.55 mm, +0.9 mm and terminations on board center are available.

### ■Product Specifications

|         |                |          |                       |                                    |                     |                         |
|---------|----------------|----------|-----------------------|------------------------------------|---------------------|-------------------------|
| Ratings | Current rating | 0.5 A    | Operating temperature | -55°C to +85°C (Note 1)            | Storage temperature | -40°C to +70°C (Note 2) |
|         | Voltage rating | 125 V AC | Operating humidity    | 95% R.H. max.<br>(No condensation) | Storage humidity    | 40% to 70% (Note 2)     |

| Item                                    | Specification                                                    | Conditions                                                                                                                                 |
|-----------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Insulation resistance                | 1000MΩ min.                                                      | 500 V DC                                                                                                                                   |
| 2. Withstanding voltage                 | No flashover or insulation breakdown.                            | 500 V AC / 1 minute                                                                                                                        |
| 3. Contact resistance                   | 40 mΩ max. (initial value) (Note 3)                              | 1 mA                                                                                                                                       |
| 4. Vibration                            | No electrical discontinuity of 100ns or more                     | Frequency: 10 to 2000 Hz, single amplitude of 1.52 mm or acceleration of 147 m/s <sup>2</sup> (peak), 4 hours in each of the 3 directions. |
| 5. Humidity (Steady state)              | Insulation resistance: 100 MΩ min.                               | 96 hours at temperature of 40°C and humidity of 90% to 95%                                                                                 |
| 6. Temperature cycle                    | No damage, cracks, or parts looseness.                           | -55°C, 30 min → 15 to 30°C, within 5 min → 85°C, 30 min → 15 to 35°C, within 5 min, for 5 cycles                                           |
| 7. Durability<br>(Insertion/withdrawal) | Change of contact resistance from the start should be 20 mΩ max. | 10000 cycles at 400 to 600 cycles per hour                                                                                                 |
| 8. Resistance to soldering heat         | No deformation of components affecting performance.              | Reflow: At the recommended temperature profile                                                                                             |
|                                         |                                                                  | Manual soldering: 300°C for 3 seconds                                                                                                      |

Note 1: Includes temperature rise caused by current flow.

Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non- conducting condition of installed connectors in storage, shipment or during transportation.

### ■Materials

| Part      | Material                                                 | Finish                                                    | Remarks |
|-----------|----------------------------------------------------------|-----------------------------------------------------------|---------|
| Insulator | PPS                                                      | Color : Black                                             | UL94V-0 |
| Contact   | IC1K, IC1HA: Phosphor bronze<br>Others: Beryllium copper | Contact Area : gold plating<br>Lead Area : solder plating | —       |

## Ordering Information

**IC1 F - \* R D - 1.27 SH**

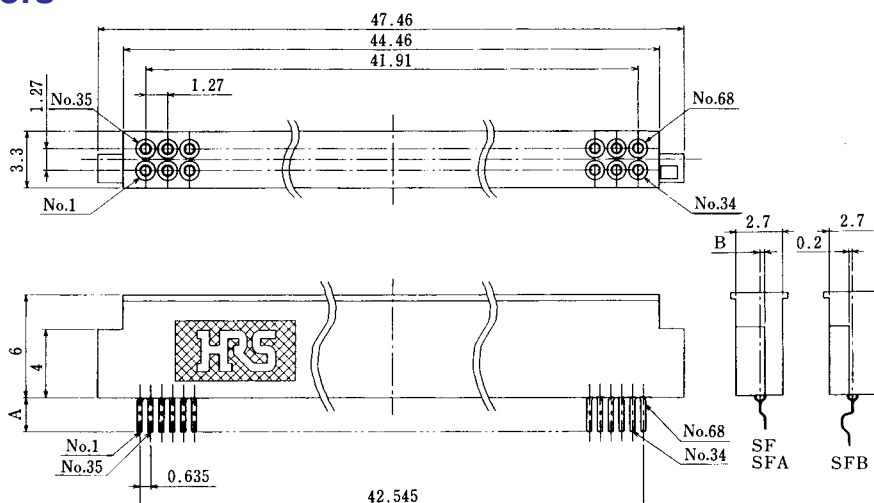
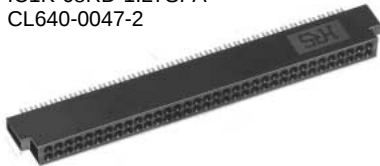
**① ② ③ ④ ⑤ ⑥ ⑦**

|   |                                      |                            |
|---|--------------------------------------|----------------------------|
| ① | Series name : IC1                    |                            |
| ② | BB: Compliant with PC Card Standards | Connector thickness: 2.8mm |
|   | F: Compliant with PC Card Standards  | Connector thickness: 2.7mm |
|   | HA: Compliant with PC Card Standards | Connector thickness: 2.7mm |
|   | Lead offset type                     |                            |
|   | K: Compliant with PC Card Standards  | Connector thickness: 2.7mm |
|   | Suited to automatic mounting         |                            |
| ③ | Contacts: 40, 68                     |                            |
| ④ | R: Card Connector                    |                            |
| ⑤ | D: 2-row arrangement                 |                            |
| ⑥ | Contact pitch: 1.27mm                |                            |
| ⑦ | Mounting method                      |                            |
|   | SH: Two sided board terminations     |                            |
|   | SHA: Two sided board terminations    |                            |
|   | SF: Single surface mount type.       |                            |
|   | SFA: Single surface mount type.      |                            |
|   | SFB: Single surface mount type.      |                            |

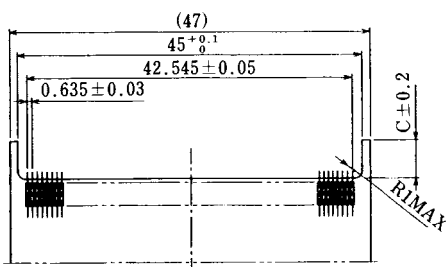
## 68 Contacts Card Connectors

- Connector thickness : 2.7mm
- Lead offset type
- Suited to automatic mounting
- Single surface mount type

IC1K-68RD-1.27SFA  
CL640-0047-2



## PCB mounting pattern



Unit:mm

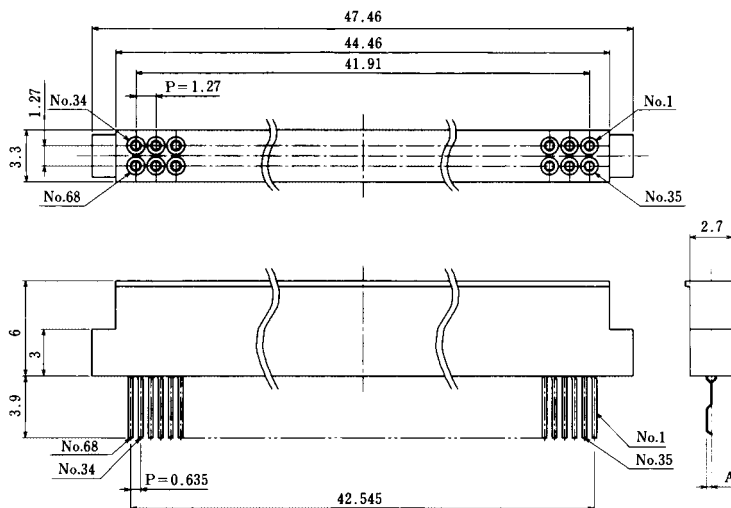
| Part Number       | CL No.     | A | B   | C |
|-------------------|------------|---|-----|---|
| IC1K-68RD-1.27SF  | 640-0046-0 | 2 | 0.3 | 5 |
| IC1K-68RD-1.27SFA | 640-0047-2 | 2 | 0.9 | 5 |
| IC1K-68RD-1.27SFB | 640-0048-5 | 3 | —   | 6 |

## ■68 Contacts Connector

- Connector thickness:2.7mm
- Single surface mount type

Compliant with PC Card Standard

IC1F-68RD-1.27SF  
CL640-0035-3



Unit:mm

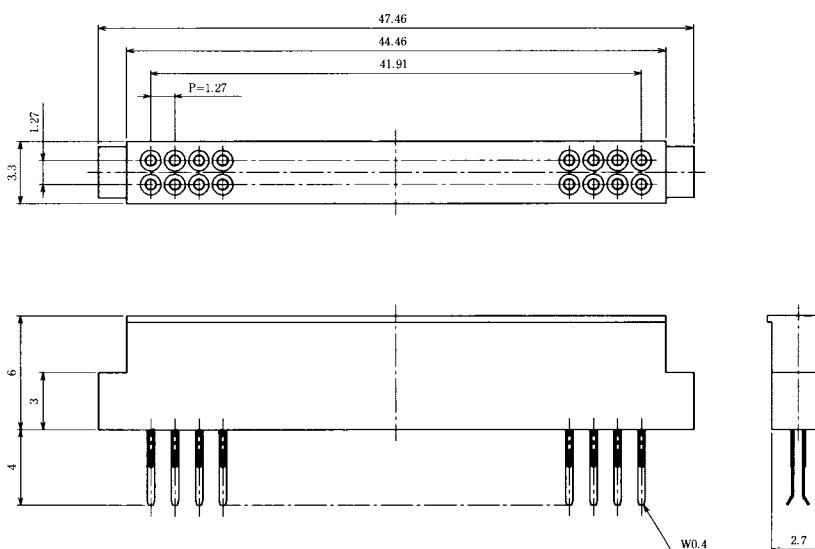
| Part Number       | CL No.     | A     |
|-------------------|------------|-------|
| IC1F-68RD-1.27SF  | 640-0035-3 | 0.3   |
| IC1F-68RD-1.27SFA | 640-0040-3 | 0.854 |

## ■68 Contacts Connector

- Connector thickness:2.7mm
- Two sided board termination on the center line

Compliant with PC Card Standard

IC1F-68RD-1.27SH  
CL640-0013-0



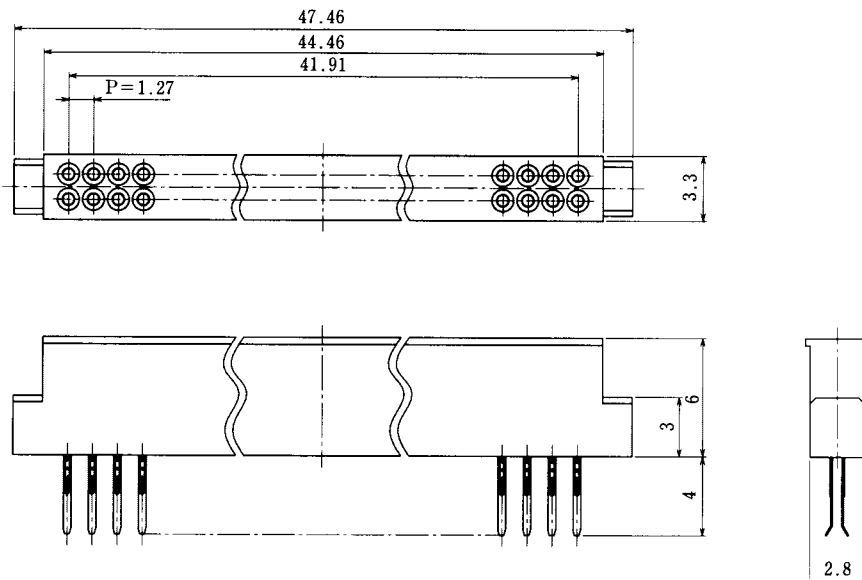
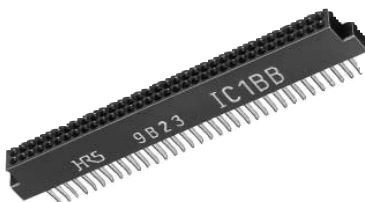
- Recommended board thickness : 0.4 to 0.5mm

## ■68 Contacts Connector

- Connector thickness:2.8mm
- Two sided board termination on the center line

Compliant with PC Card Standard

IC1BB-68RD-1.27SH  
CL640-0036-6



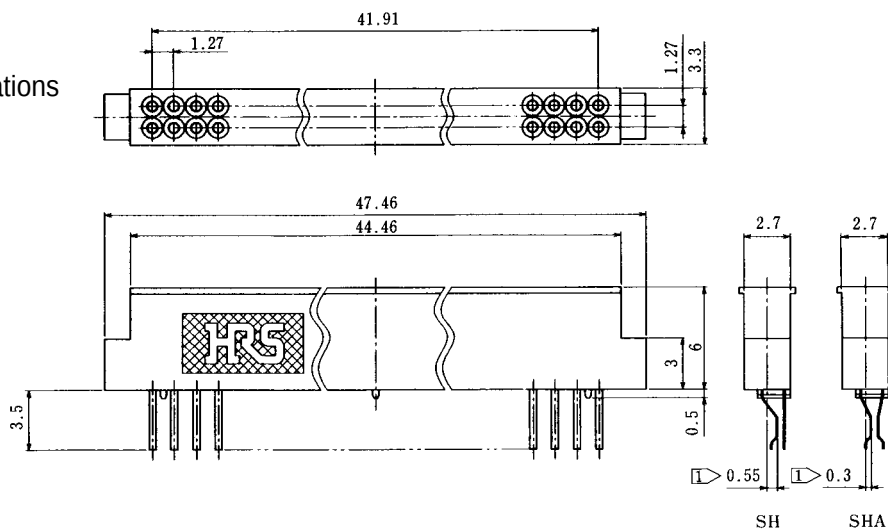
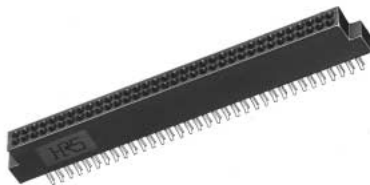
• Recommended board thickness : 0.4 to 0.5mm

## ■68 Contacts Connector

- Connector thickness:2.7mm
- Two sided board terminations
- Two Mounting levels of board terminations

Compliant with PC Card Standard

IC1HA-68RD-1.27SH  
CL640-0044-4



• Recommended board thickness : 0.4 to 0.5mm

① For 0.45mm board thickness

| Part Number        | CL No.     |
|--------------------|------------|
| IC1HA-68RD-1.27SH  | 640-0044-4 |
| IC1HA-68RD-1.27SHA | 640-0045-7 |