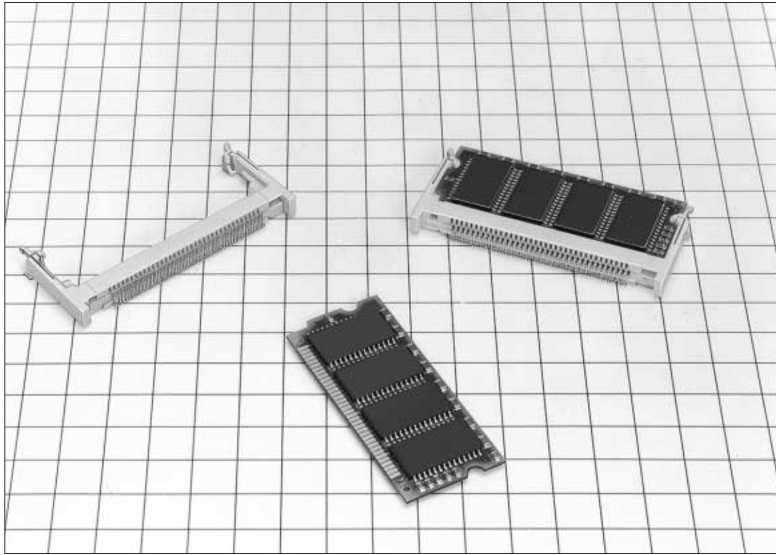
# THE DATASHEET OF

# SX1B-72S-0.635SH

# 0.635mm Pitch S.O. DIMM Socket

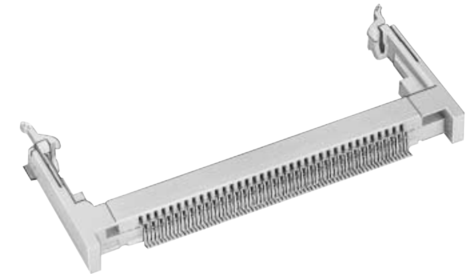
SX1 Series



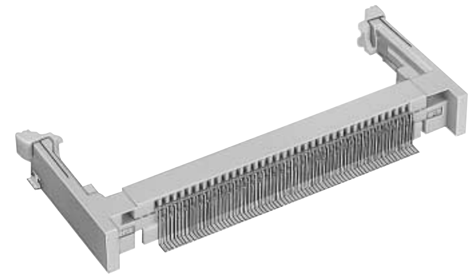
## Variation in Mounting Height

● Low Profile Type (Mounting Height: 4.0mm)

● Standard Type (Mounting Height: 5.5mm)



● High Profile Type (Mounting Height: 8.0mm)



## Easy Insertion and Extraction Operation of Module Board

## ■Features

### 1. 72pos. Small Outline DIMM Socket

SX1 series is a 0.635mm pitch horizontal SMT type socket applicable to
Small Outline DIMM standardized in JEDEC.
The size is about half as large as the conventional 72 contacts DRAM SIMM socket.
Corresponding to double density (both surfaces), this socket realizes high functionality and density of the module board.

### 2. Variation in Mounting Height

Three grades of variation are available for the mounting height.

### 3. Easy Insertion and Extraction of Module Board

One-touch operation to insert the module board slantly and push it downward.
Widen latches right and left, and the module board will be automatically raised.
This mechanism allows easy automatic insertion and extraction.

### 4. Achieve High Performance

This socket achieves high performance by the wiping effect in the insertion and the unique press-fit face contact.

### 5. Insertion and Extraction Operation with Click Sensibility

The unique mold twin-latch allows excellent insertion and extraction operation with a sensible click.

## ■Applications

Personal computers, business equipment, Measuring instrument, telecommunication equipment, FA, game, etc.

## ■Product Specifications

| Rating | Rated Current | -55℃+85℃ | Operating Humidity Range | -55℃~+85℃ |
|---|---|---|---|---|
| | Rated Voltage | 25V AC | | |
| | Operating Temperature Range | 0.5A | | |

| Item | Specification | Condition |
|---|---|---|
| 1. Contact Resistance | 35mΩ min. | Measured at 100mA |
| 2. Insulation Resistance | 1000MΩ min. | Measured at 250V DC |
| 3. Withstand voltage | Neither short nor breakdown should occur | 250V AC for 1 minute |
| 4. Vibration | Electrical discontinuity, 1μS max. | Exposed to 10~55Hz (5 minutes/cycle) and single amplitude 0.75mm in 3 directions for 50 minutes, respectively. |
| 5. Moisture Resistance | Contact resistance: 55mΩ max.<br>Insulation Resistance: 1000MΩ min | Exposed to temperature 40±2℃ and humidity 90~95% for 96 hours |
| 6. Temperature Cycle | Contact resistance: 55mΩ max.<br>Insulation Resistance: 1000MΩ min: | 5 cycles under following condition;<br>Temperature : -55→ +5~35→ +85→ +5~35℃<br>Time : 30→ 10~15→ 30→ 10~15 |
| 7. Operating Life | Contact resistance: 55mΩ max. | 30 cycles |
| 8. Salt spray | Contact resistance: 55mΩ max. | No remarkable corrosion<br>Exposed to salt 5% density water for 48 hours |

## ■Material

| Part | Material | Finish |
|---|---|---|
| Contact | Phosphor copper | Selictive Gold plating |
| Insulator | PA | UL94V-0 |
| Metal Fitting | Phosphor copper | Solder plating |

## ■Ordering Information

**SX1 C A - 72 S - 0.635 SH**

q w e r t y u

| | |
|---|---|
| q Series Name : SX1 | r Number of Contacts : 72 |
| w Mounting Height<br>B : Standard type (Height: 5.5mm)<br>C : High profile type (Height: 8.0mm)<br>E : Low profile type (Height: 4.0mm) | t Contact Type : Female contact<br>y Contact Pitch : 0.635mm |
| e DIMM Key<br>None : 3.3V type<br>A : 5V type | u Contact type<br>SH : SMT type |

## ■Standard Type

| | Product No. | HRS No. | Number of Contacts | Key | D | Remarks |
|---|---|---|---|---|---|---|
| ※ | SX1B-72S-0.635SH | CL530-0018-9 | 72 | 3.3V Type | 3.1 | Selective gold plating |
| ※ | SX1BA-72S-0.635SH | CL530-0019-1 | | 5V Type | 5.4 | Selective gold plating |

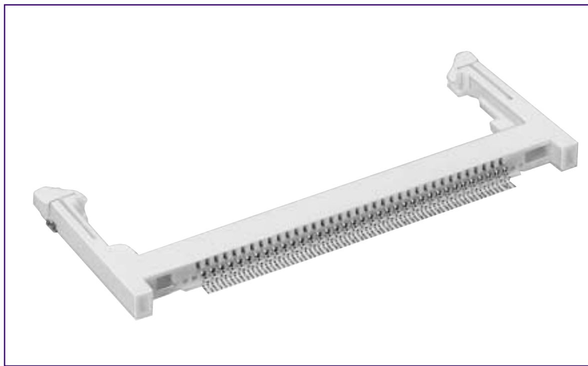
Note 1: The tube packaging product is provided for products marked with *. In order to designate the tube package product, add (20) to the tail of the product No. (Delivery unit: 20 pcs per set)
Note 2: The 3.3V and 5V keys correspond to the Small Outline DIMM key.

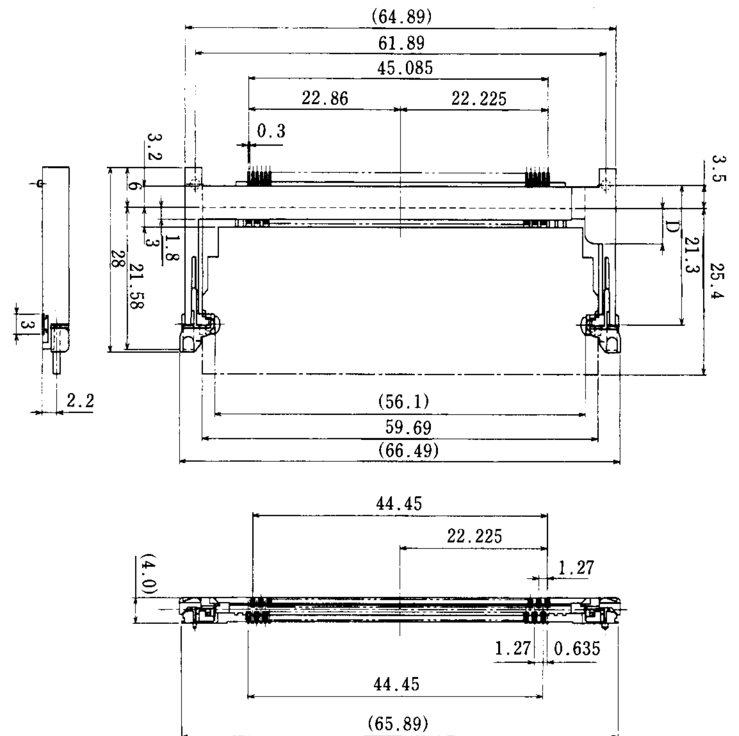
## ■High Profile Type

| Product No. | HRS No. | Number of Contacts | Key | D | Remarks |
|---|---|---|---|---|---|
| SX1C-72S-0.635SH | CL530-0003-1 | 72 | 3.3V Type | 3.1 | Selective gold plating |
| SX1CA-72S-0.635SH | CL530-0004-4 | | 5V Type | 5.4 | Selective gold plating |

Note 2: The 3.3V and 5V keys correspond to the Small Outline DIMM key.

## ■Low Profile Type



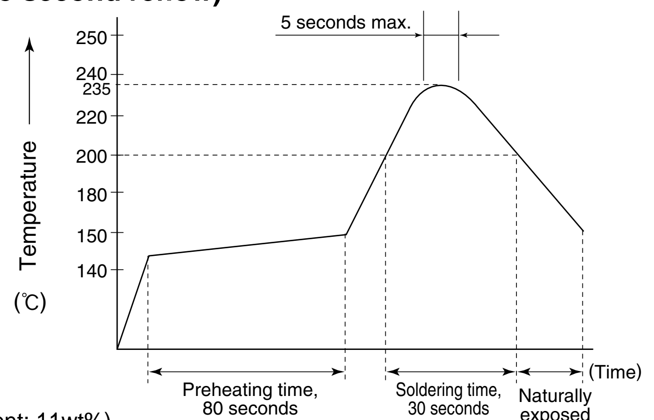



| Product No. | HRS No. | Number of Contacts | Key | D | Remarks |
|---|---|---|---|---|---|
| SX1E-72S-0.635SH | CL530-0006-0 | 72 | 3.3V Type | 3.1 | Selective gold plating |
| SX1EA-72S-0.635SH | CL530-0007-2 | | 5V Type | 5.4 | Selective gold plating |

Note 2: The 3.3V and 5V keys correspond to the Small Outline DIMM key.

## ◆Recommended Temperature Profile

### ● IR Reflow: Recommended Temperature Profile (Up to second reflow)




### ● Manual Soldering

Soldering iron temperature: 300±10℃

Manual soldering time: 3 seconds max.

This temperature profile is recommended.

The temperature may be slightly changed according to solder paste types and amount.

### ● Setting Condition (Reference)

○Board

Size : 110×85×1.6 (mm)

Material: Glass epoxy (Grade: FR-4)

○Solder paste

63Sn/37Pb : (Flux content: 11wt%)

Metal mask thickness: 0.15mm

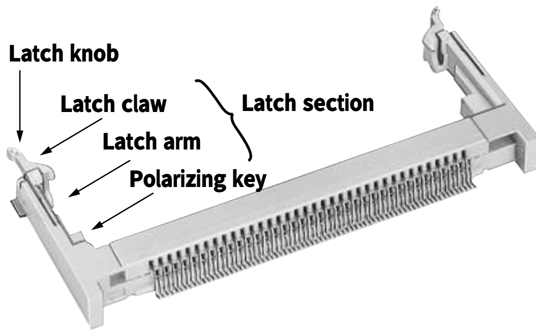
## ◆Recommended Module Board Dimensions

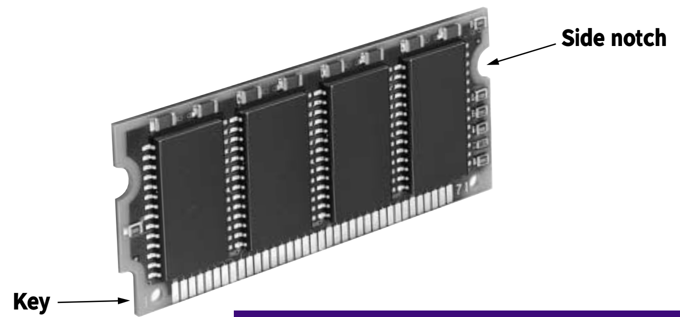
Unit: mm

| A | B | |
|---|---|---|
| | 3.3V | 5V |
| 25.40 | 3.18 | 6.35 |
| 31.75 | 3.18 | 6.35 |
| 38.10 | 3.18 | 6.35 |

## ◆PCB Footprints

# ◆Precautions for use




## Procedures for Board Insertion

1. Adjust the socket polarizing key and the board key to the same direction.
2. Insert the board obliquely. Moreover, lay the board in parallel to the opening at angle of 20° to 30° , and softly insert the board so as to hit the socket bottom. Stopping insertion halfway will result in improper insertion.
3. Applying the board side notch in parallel to the socket bottom so that the board position cannot be displaced, press the board side notch up, and fix it to the latch portion at both socket edges. Press the board side notch, and release the notch with a snap "click" tone, if the printed board exceeds the latch claw head.

   With this action, the board has been completely installed in the socket. At this time, pressing force is equivalent to the extent to turn on the electric product switch. If the stronger pressing force is needed, check whether the direction and depth to insert the board is adequate or not, and then re-push the board.

## Procedures for Board Extraction

**Standard type and high profile type**

Apply the thumb nail to the latch knob at both socket edges. Forcibly widen the latch knobs to right and left ways, and release the latch. Then, draw the board out along an angle where the board is raised.

**Low profile type**

Press the top of the latch unit down with fingers to release the latch, and directly draw the board out.

**Cautions**

1. The latch has strength enough to endure. However, if force is applied according to other operation methods instead of the Procedures for Handling Sockets, or if further force is given in the state where the module board is raised, products could be damaged. Be sure to observe the Procedures for Handling Sockets.
2. The board is designed in compliance with JEDEC "Small Outline DIMM (Dual Inline Memory Module". However, if the board is used instead of the recommended module board, or if the mounting product is used for other devices than DRAM memory IC, troubles due to vibration or other failures could occur. If needed, consult the HRS company.
3. The above illustration shows SX1B.
4. The recommended module board pad or sharp angle edges could cause failure in contacts. Therefore, it is recommended to offset the tie-bar from the center line, set the internal pad (0.1mm), or remove sharp corners or burrs according to the recommended sizes.
5. Don't provide the external contact surface of the module board with the convex/concave and chamfer areas at both edges. Comply with the recommended sizes.
6. When the board is mounted or housing is installed, if warpage or flexure has occurred, an excessive load could cause changes in the solder bonding area and the strength. Check individual conditions.

## Procedures for Board Insertion

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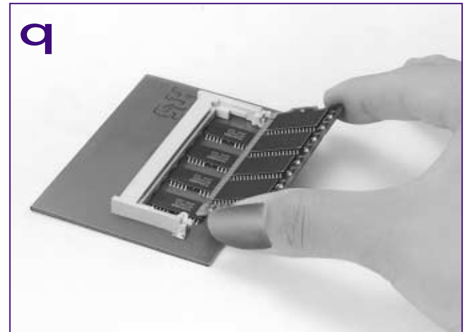

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## Procedures for Board Extraction

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