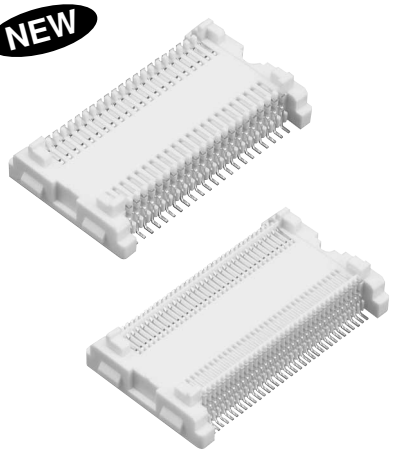
NAiS

EXCELLENT FOR MASS PRODUCTION THESE SOP IC SOCKETS RESIST VIBRATION AND SHOCK

SOP IC SOCKETS (600 mil 44 contacts 1.27mm pitch) SSOP IC SOCKETS (600 mil 70 contacts 0.8mm pitch)

NEW



FEATURES

1. Suited for mass production
Two-piece socket that features simple assembly to facilitate mass production.
2. Easy IC attachment and detachment
Owing to a structure that keeps stress from being applied to the IC leads when attaching and detaching, there will be no loss of contact reliability.
3. Automated mounting compatible
The socket has an open flat construction on its top surface so that it can be picked up by an automated mounting machine using suction for automated mounting.
4. Resistant against vibration and shock (edge contact structure)

APPLICATIONS

Amusement-related applications, etc.

PRODUCT TYPES

No. of contacts	Nominal dimension	Emboss tape package			Plastic bag packaging		
		Body	Packing quantity		Frame	Packing quantity	
		Part No. of frame	1 reel	Outer carton	Part No. of frame	1 bag	Outer carton
44	600mil	AXS6N44A149P	450 pcs.	2,250 pcs.	AXS6S7024V	450 pcs.	2,250 pcs.
70		AXS6S70A149P					

1. Chracteristics

Item		Specifications		Conditions
		44 contacts	70 contacts	
Electrical characteristics	Rated current	0.5A	0.5A	—
	Insulation resistance	Min. 1,000MΩ	Min. 1,000MΩ	Using 500V DC megger
	Breakdown voltage	500V AC for 1 minute	250V AC for 1 minute	Detection current: 1mA
	Contact resistance	Max. 40mΩ	Max. 50mΩ	Measured based on the HP4338B measurement method of JIS C 5402. Does not include conductor resistance of IC leads.
Mechanical characteristics	Shock resistance	981m/s² (3-axis)	981m/s² (3-axis)	No interruption of current longer than 1μs
Environmental characteristics	H_2S	Contact resistance Max. 40mΩ	Contact resistance Max. 50mΩ	After 48 hours of exposure to humidity 75 to 80% R.H., temperature 40°C±2°C, concentration 3±1ppm
	SO^2	Contact resistance Max. 40mΩ	Contact resistance Max. 50mΩ	After 48 hours of exposure to humidity 90 to 95% R.H., temperature 40°C±2°C, concentration 10±3ppm
	Humidity	Contact resistance Max. 40mΩ, insulation resistance Min. 100MΩ	Contact resistance Max. 50mΩ, insulation resistance Min. 100MΩ	After 96 hours of exposure to humidity 90 to 95% R.H., temperature 40°C±2°C
	Thermal shock resistance	Contact resistance Max. 40mΩ, insulation resistance Min. 100MΩ	Contact resistance Max. 50mΩ, insulation resistance Min. 100MΩ	After 5 cycles where 1 cycle consists of steps 1 to 4 Steps 1. $-55^{\ 0}_{-3}$ °C, 30 minutes 2. 25^{+10}_{-5} °C, Max.5 minutes 3. $85^{+3}_{\ 0}$ °C, 30 minutes 4. 25^{+10}_{-5} °C, Max.5 minutes
	Ambient temperature	–55°C to +85°C	–55°C to +85°C	No freezing at low temperatures
	Soldering heat resistance	Peak temperature: Max. 245°C	Peak temperature: Max. 245°C	Infrared reflow soldering
		300°C within 5 seconds	300°C within 5 seconds	Soldering iron
Suitable IC package*		44 contacts: SOP IC with nominal dimension 600 mil and 1.27mm pitch 70 contacts: SSOP IC with nominal dimension 600 mil and 0.8mm pitch		

Note: *Please consult one of our sales offices regarding suitable IC packages.

2. Materials and Surface Treatment

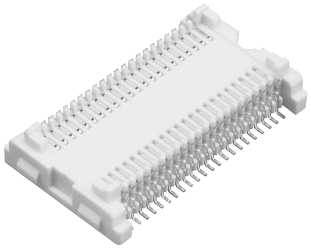
Part name		Material	Surface treatment
Molded plastic part	Body	Glass fiber reinforced polyamide (UL94V-0)	—
	Frame	Glass fiber reinforced PPS resin (UL94V-0)	—
Contact		Copper alloy	Contact portion: Sn plating over Ni, Terminal portion: Sn plating over Ni (except for top of the terminal)

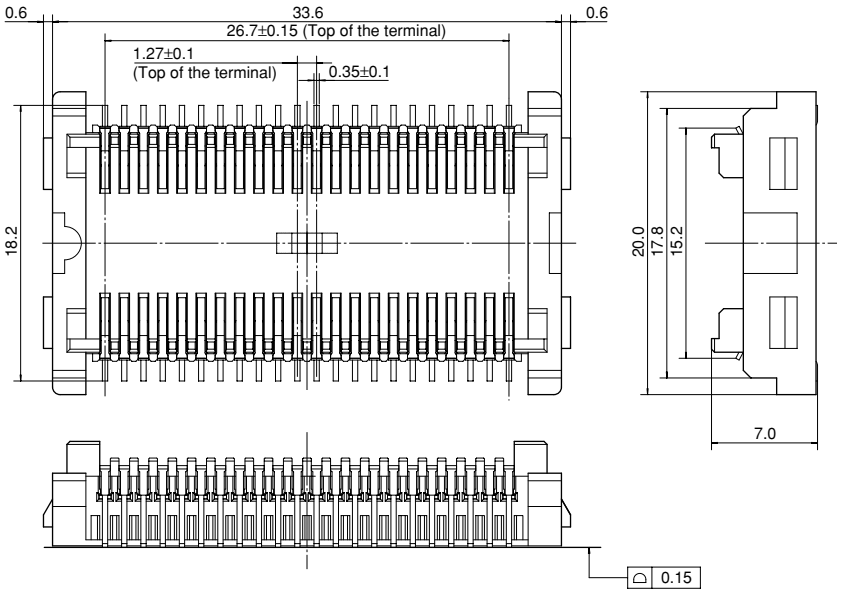
DIMENSIONS

mm General tolerance ±0.3

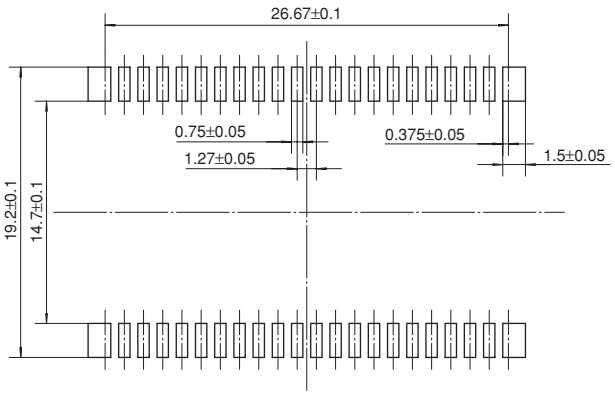
Socket body

• Nominal dimension: 600 mil 44 contacts

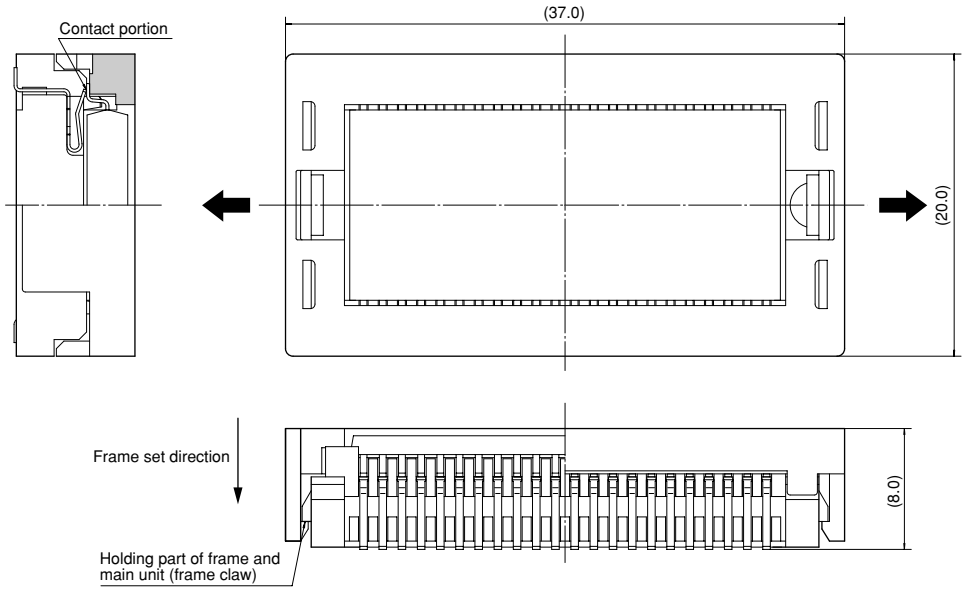




Recommended PC board pattern (TOP VIEW)



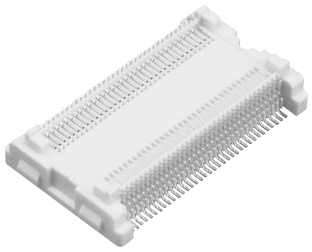
IC chip and frame mounted on socket body

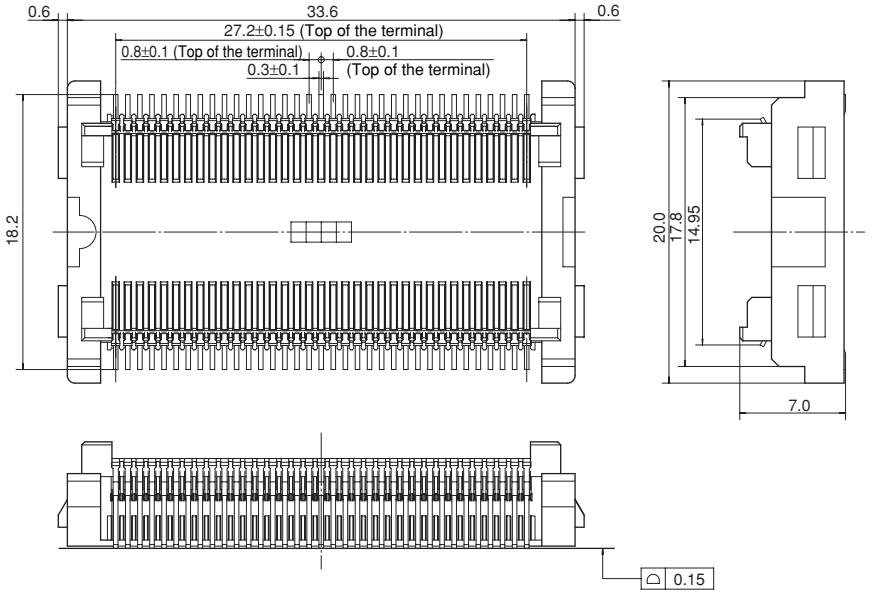


Socket body

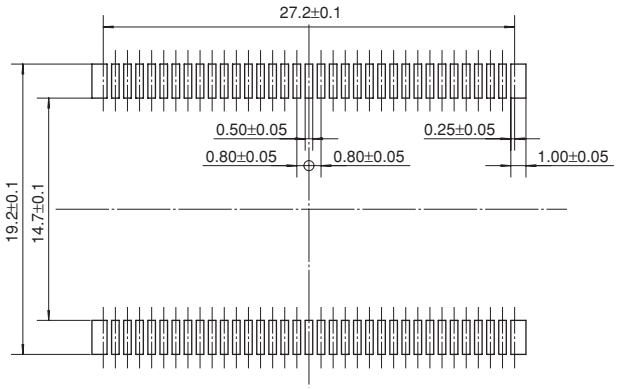
mm General tolerance ±0.3

• Nominal dimension: 600 mil 70 contacts

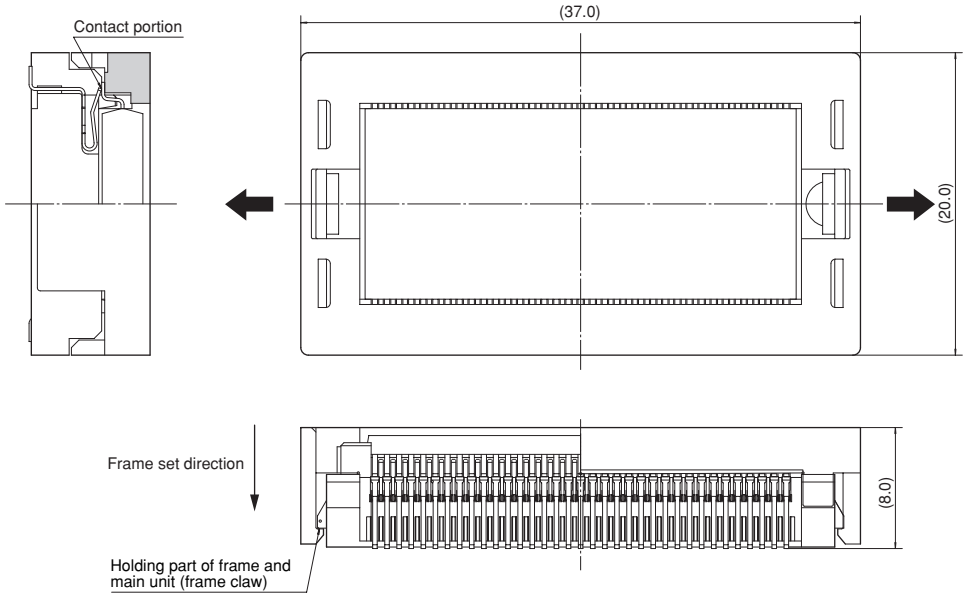




Recommended PC board pattern (TOP VIEW)



IC chip and frame mounted on socket body

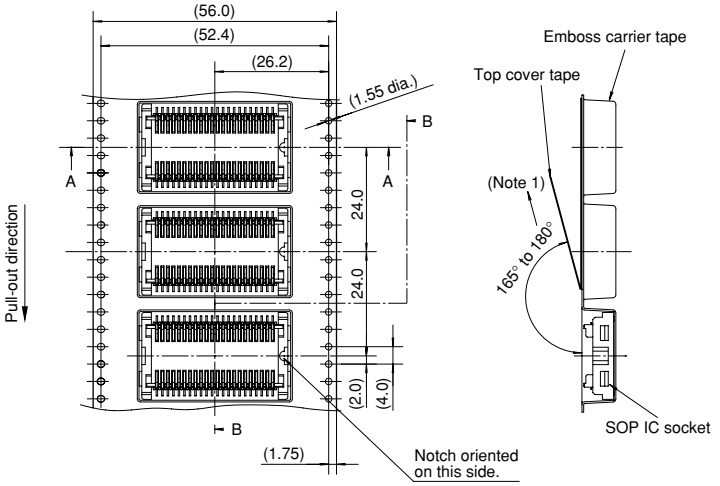


EMBOSSED TAPE AND REEL

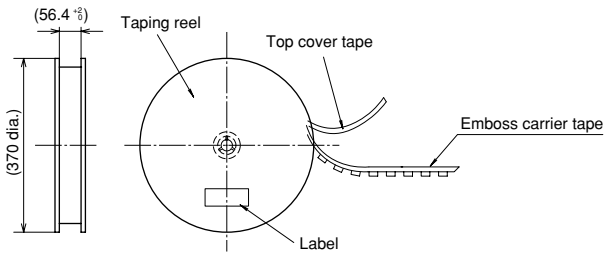
mm

1. Nominal dimension: 600 mil 44 contacts

1) Tape dimensions

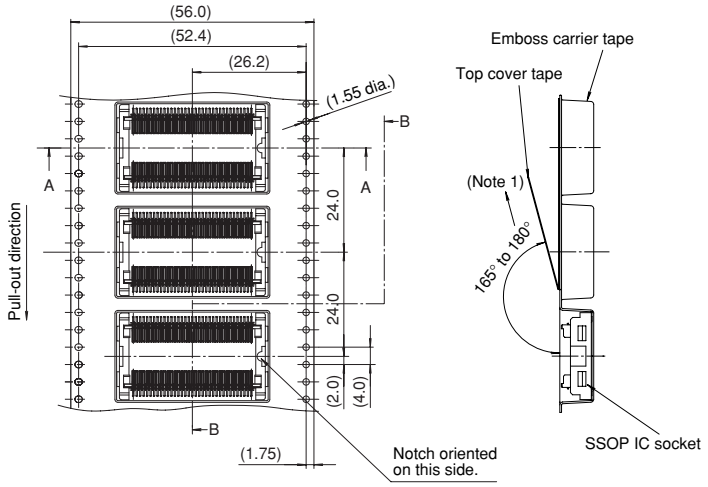


2) Reel dimensions

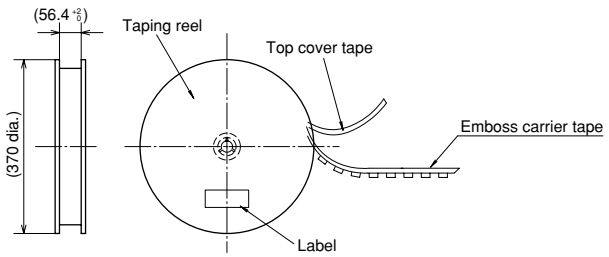


2. Nominal dimension: 600 mil 70 contacts

1) Tape dimensions



2) Reel dimensions



NOTES

1. As this construction stresses the PC board's contact ability, you should take the PC board thickness into account when studying creating a socket.
The recommended PC board (made from FR-4) thickness is at least 1.0 mm for an SOP IC socket.

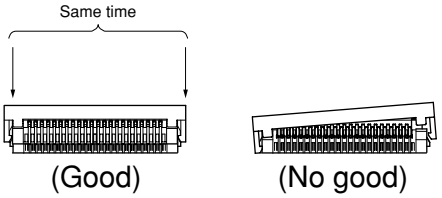
2. Reflow soldering
In order to ensure solder strength, cream solder used should have a strength equivalent to Sparkle Solder Paste 63-101F (Senju Metal Industry Co., Ltd.).

3. Manual soldering the SO packages
(1) Soldering iron and solder
Use a small capacity soldering iron with a narrow tip and thin wire solder.
Example)
Capacity: 100V AC 15W
Tip diameter: 1.0 to 1.2mm
Wire solder diameter: 0.6 to 0.8mm
(2) Soldering time
Perform soldering quickly. Solder within 5 seconds using the soldering iron specified above.

4. If the IC's pin pitch is uneven, it might not fit into the socket or the IC may become damaged. Check the IC's pin pitch before insertion.

5. When setting the frame, please use one of our specialized tools, and make sure that all frame tabs are securely inserted.
If setting an IC embedded in a frame on the main unit, press in the frame until both tabs are firmly snapped into the main unit. When the frame is full inserted, there will be an audible snapping sound.

6. When setting the frame by hand, lock all arms (44 and 70 contacts: 4 points) to the socket body at the same time.



7. When removing the frame, use the special tool available from us designed for that purpose.
When replacing an IC, be sure to use the special frame removal tool available from us. Do not apply excessive displacement to the arms on the frame. Doing so may result in damage.

8. Do not bend the pins. Doing so may result in damage.

9. Do not pull the pins with excessive force. Doing so may cause them to come off.