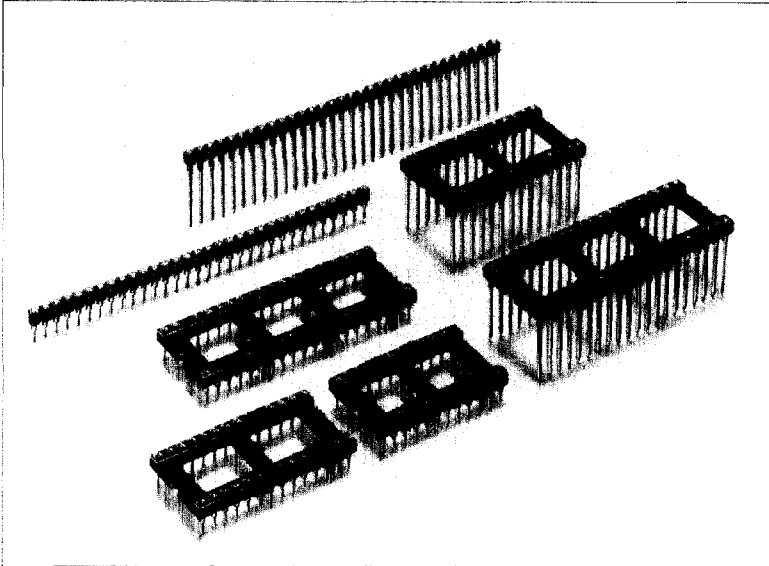


<h1 style="margin: 0;">NAIS</h1>	<p style="margin: 0;">HIGH RELIABILITY IC SOCKET WITH ROUND PIN</p>	<h2 style="margin: 0;">IC SOCKETS ROUND PIN TYPE</h2>
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FEATURES

- This is a high reliability IC socket with round pin external contacts constructed with 4 point internal contacts.
Because of the gold plating on all surfaces, the 4 point contact construction offers superior resistance to vibration, shock, and environmental conditions, resulting in high reliability.
- Terminal shape prevents entrance of solder flux.
Because of the round pin construction and sufficient distance being provided between the PC board mounting surface and the frame, flux cannot rise up into the contact section.
- With advanced design method of the frame, stress transmission from the PC board is greatly reduced.

SPECIFICATIONS

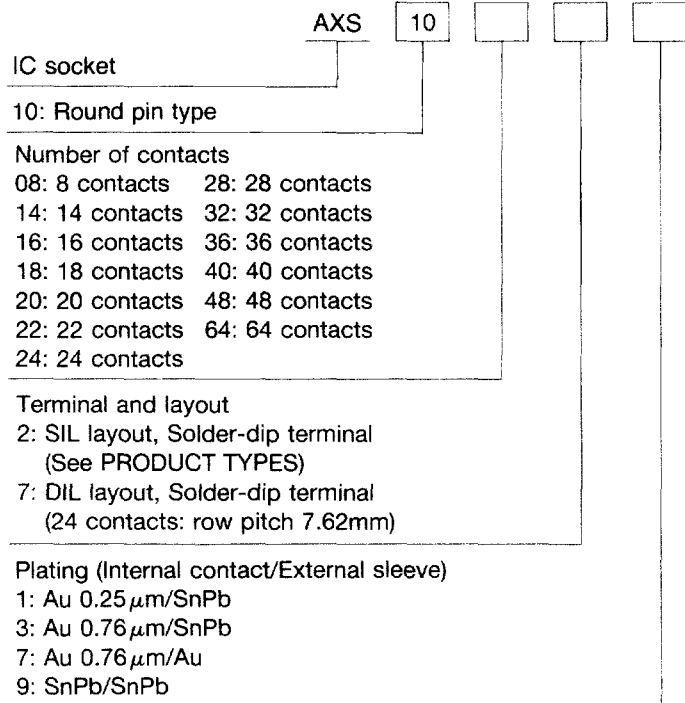
1. Characteristics

	Item	Specifications	Condition
Electrical characteristics	Rated current	1A	
	Breakdown voltage	1,000V AC for 1 min.	Detection current: 1mA
	Insulation resistance	Min. 1,000MΩ	Using 500V DC megger
	Contact resistance	Max. 20mΩ	Measured with YHP4328A
	Electrostatic capacitance	Max. 2pF	at 1kHz
Mechanical characteristics	Vibration resistance	10 to 2,000Hz, 147m/s ² {15G}	After carrying current (Max. 100mA) during the test, no interruption of current longer than 1μs does not occur.
	Shock resistance	980m/s ² {100G}	
	Insertion force of single contact	Max. 3.33N {340g}	Measured by steel-gauge with 0.4×0.25mm cross section area or by pingauge with diameter 0.4mm
Pull-out force of single contact	Min. 0.392N {40g}		
Lifetime characteristics	Insertion and removal life	Min. 100 times	With usage of applicable leads
Environmental characteristics	H ₂ S gas	Contact resistance after test: Max. 20mΩ	After 96 hours of exposure to humidity 90 to 95% R.H., temperature 40°C±2°C, concentration 3±1 ppm
	SO ₂ gas	Contact resistance after test: Max. 20mΩ	After 48 hours of exposure to humidity 90 to 95% R.H., temperature 40°C±2°C, concentration 10±3 ppm
	Humidity	Contact resistance after test: Max. 20mΩ Insulation resistance after test: Min. 300MΩ	After 96 hours of exposure to humidity 90 to 95% R.H., temperature 40°C±2°C
	Thermal shock resistance	Contact resistance after test: Max. 20mΩ Insulation resistance after test: Min. 300MΩ	Low temperature: -55°C (30 min.) High temperature: +125°C (30 min.) No. of cycles: 5 cycles
	Ambient temperature	-55°C to +125°C	
Applicable leads	Soldering temperature	350°C: within 3 sec. 260°C: within 10 sec.	
		Square lead: 0.5×0.25mm Round lead: Diameter 0.4 to 0.53mm	

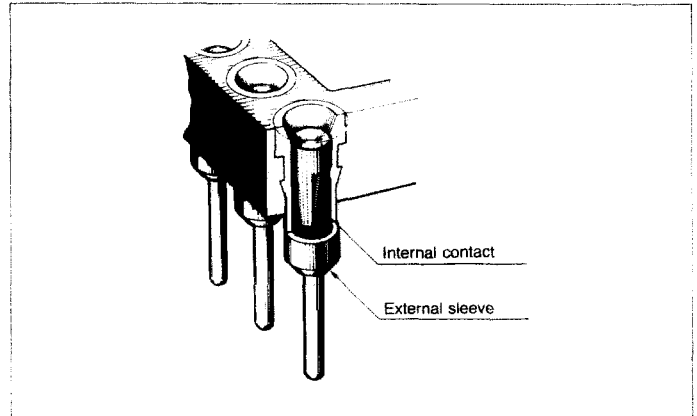
2. Materials and surface treatment

Part name	Material	Surface treatment
Frame	Glass-reinforced PBT (UL94V-0)	---
External sleeve	Brass	SnPb plating over Ni or Au plating over Ni
Internal contact	Beryllium copper	SnPb plating over Ni Au plating (0.25μm) over Ni Au plating (0.76μm) over Ni

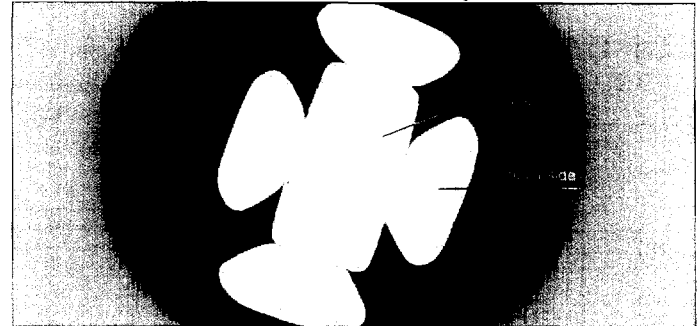
ORDERING INFORMATION



CONTACT CONSTRUCTION



CONTACTING CONDITION (BOTTOM VIEW)



Note) Not every combination is available.
 Please refer to the table, "PRODUCT TYPES".

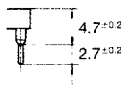
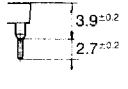
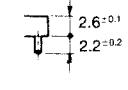
PRODUCT TYPES

1. Solder dip terminal type

External sleeve	Internal contact	SnPb plating			Au plating	Packaging	
		SnPb plating	Au plating (0.2μm)	Au plating (0.76μm)	Au plating (0.76μm)		
No. of contacts	Part No.	Part No.	Part No.	Part No.	Inner carton (Stick)	Outer carton	
DIL	8	AXS100819	AXS100811	AXS100813	AXS100817	50 pcs.	300 pcs.
	14	AXS101419	AXS101411	AXS101413	AXS101417	25 pcs.	300 pcs.
	16	AXS101619	AXS101611	AXS101613	AXS101617	25 pcs.	300 pcs.
	18	AXS101819	AXS101811	AXS101813	AXS101817	20 pcs.	300 pcs.
	20	AXS102019	AXS102011	AXS102013	AXS102017	20 pcs.	300 pcs.
	22	AXS102219	AXS102211	AXS102213	AXS102217	15 pcs.	300 pcs.
	24*1	AXS102419	AXS102411	AXS102413	AXS102417	15 pcs.	300 pcs.
	24*2	AXS102479	AXS102471	AXS102473	AXS102477	15 pcs.	300 pcs.
	28	AXS102819	AXS102811	AXS102813	AXS102817	15 pcs.	300 pcs.
	32	AXS103219	AXS103211	AXS103213	AXS103217	10 pcs.	300 pcs.
	36	AXS103619	AXS103611	AXS103613	AXS103617	10 pcs.	300 pcs.
	40	AXS104019	AXS104011	AXS104013	AXS104017	10 pcs.	300 pcs.
	48	AXS104819	AXS104811	AXS104813	AXS104817	8 pcs.	200 pcs.
	64	AXS106419	AXS106411	AXS106413	AXS106417	5 pcs.	100 pcs.
SIL	32	AXS103229	AXS103221	AXS103223	AXS103227	10 pcs.	100 pcs.

Notes) 1. *1 Pitch: 15.24mm
 *2 Pitch: 7.62mm
 2. All are stick packaged.

AXS(1)

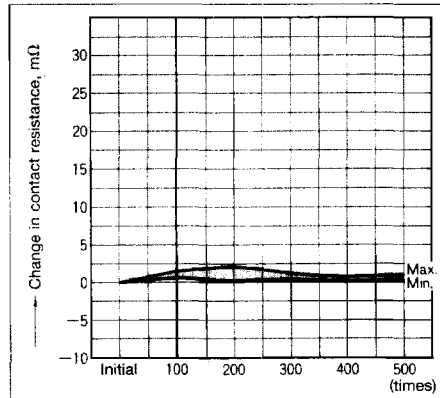
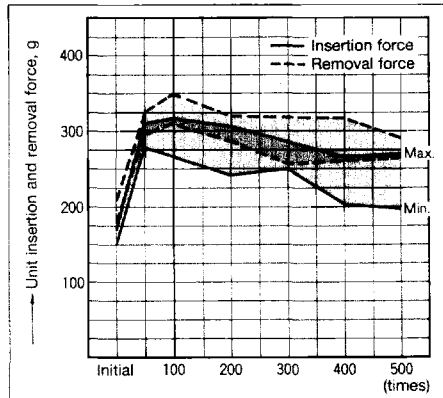
	Mounting height	Part no.	Specifications	Dimensions	Surface treatment
Standard type	4.7mm 	Please see "PRODUCT TYPES".	Please see "SPECIFICATIONS".	Please see "DIMENSIONS".	Please see "PRODUCT TYPES".
Low profile type (Custom ordered product)	3.9mm 	When ordering, please change the fourth digit of part number "10" to "14". <ex.> AXS140819	Please see "SPECIFICATIONS".	Please see "DIMENSIONS".	Please see "PRODUCT TYPES", however, external sleeve Au plating is not available.
	2.6mm 	When ordering, please change the fourth digit of part number "10" to "16". <ex.> AXS160819	Please see "SPECIFICATIONS" except for insertion force of single contact. Insertion force of single contact: 1.7N {173.4gf}	Please see "DIMENSIONS".	

TEST DATA (data in 2. to 10. apply to all products)

1.-① Insertion and removal endurance test (SnPb/SnPb) Note: (inner contact/outer sleeve)

Sample: 3 terminals

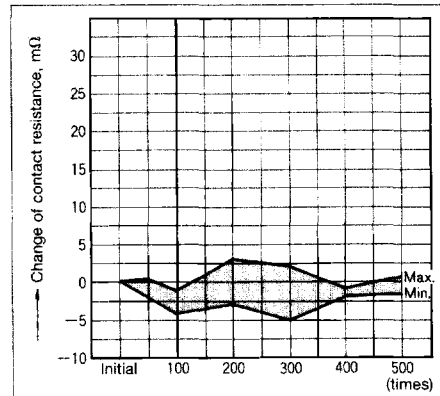
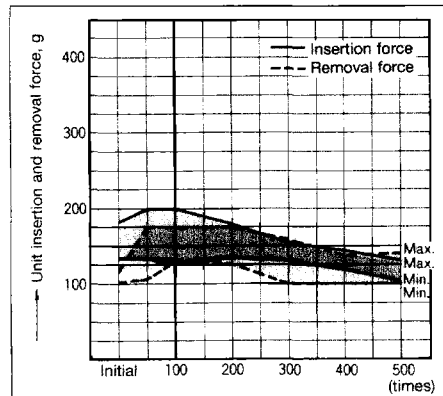
Conditions: Insertion and removal terminal 0.41 mm diam.,
insertion and removal force measurement gauge
0.41 mm diam. steel pin, insertion and removal
speed 500 to 600 times/hour



1.-② Insertion and removal endurance test (Au 0.25 μm/SnPb, Au 0.76 μm/SnPb, Au 0.76 μm/Au)

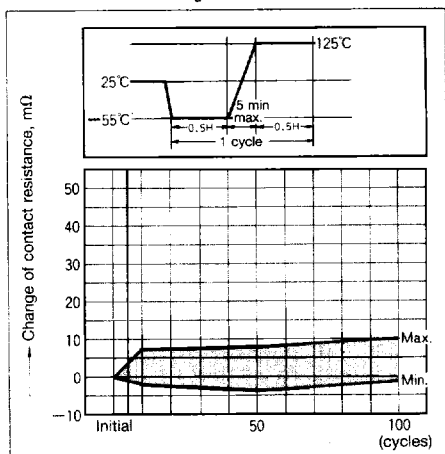
Sample: 3 terminals

Conditions: Insertion and removal terminal 0.41 mm diam.,
insertion and removal force measurement gauge
0.41 mm diam. steel pin, insertion and removal
speed 500 to 600 times/hour



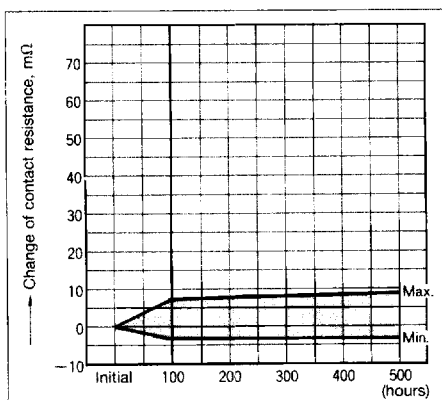
2. Thermal shock test (header and socket mated)

Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: As shown in figure below



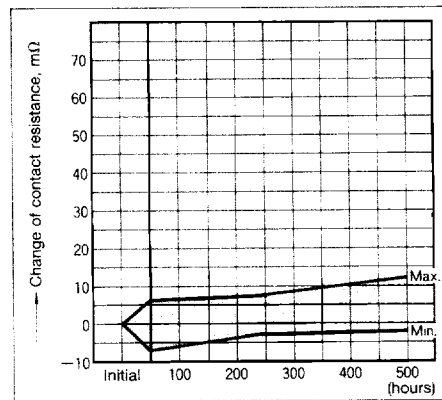
3. Humidity test (header and socket mated)

Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: Ambient temperature 40°C±2°C,
 humidity 90 to 95% RH



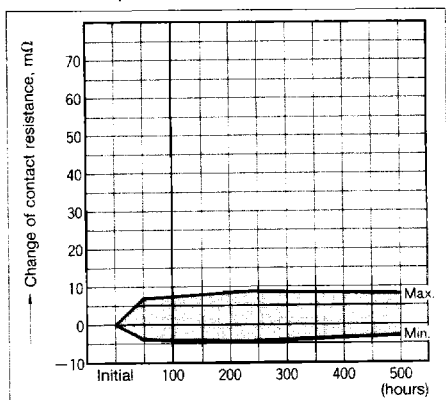
4. SO₂ test (header and socket separate)

Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: Gas concentration 10 ppm±3 ppm,
 temperature 40°C±2°C, humidity 90 to 95% RH



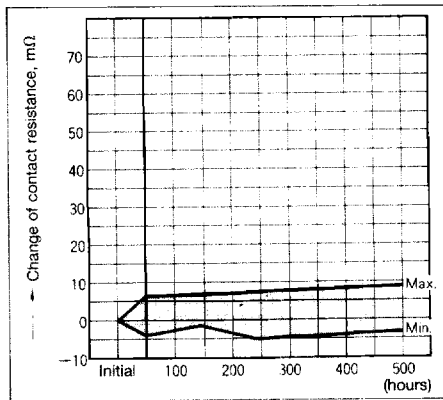
5. H₂S test (header and socket separate)

Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: Gas concentration 3 ppm±1 ppm,
 temperature 40°C±2°C, humidity 90 to 95% RH



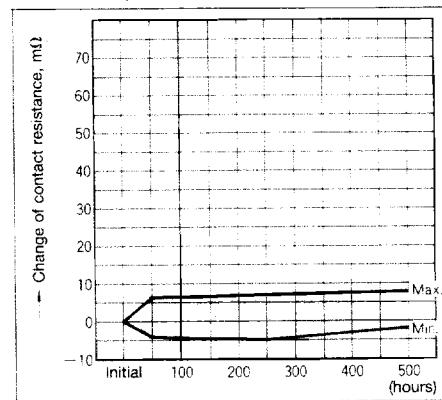
6. SO₂ test (header and socket mated)

Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: Gas concentration 10 ppm±3 ppm,
 temperature 40°C±2°C, humidity 90 to 95% RH



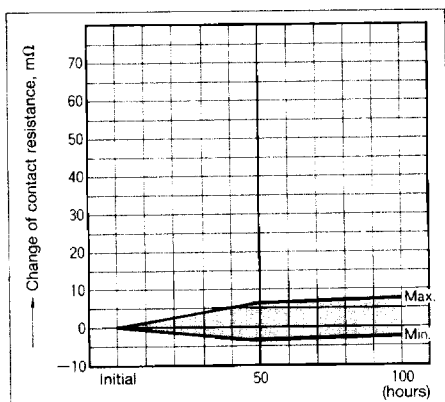
7. H₂S test (header and socket mated)

Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: Gas concentration 3 ppm±1 ppm,
 temperature 40°C±2°C, humidity 90 to 95% RH



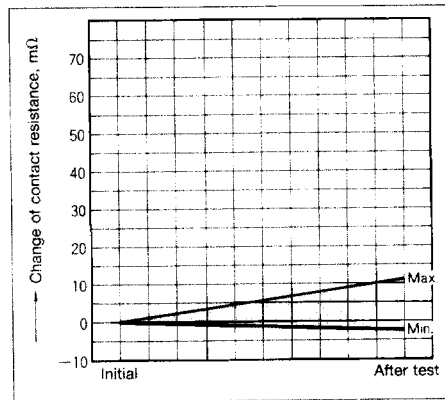
8. Saltwater spray test (header and socket mated)

Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: Saltwater concentration 5%±1%,
 bath temperature 35°C±1°C, continuous spraying



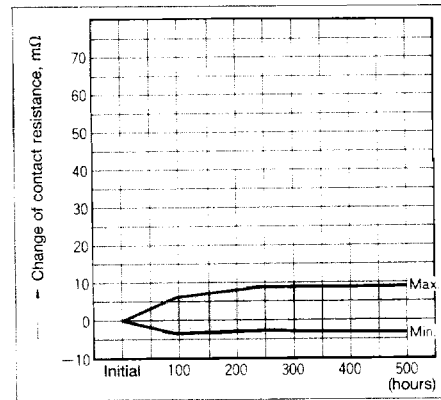
9. Vibration endurance test (header and socket mated)

Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: Frequency of 25 to 2000 to 25 Hz for 2 minutes,
 acceleration 15G, vibration time 4 hours/axis,
 vibration directions X, Y and Z axes



10. Heat resistance test (header and socket mated)

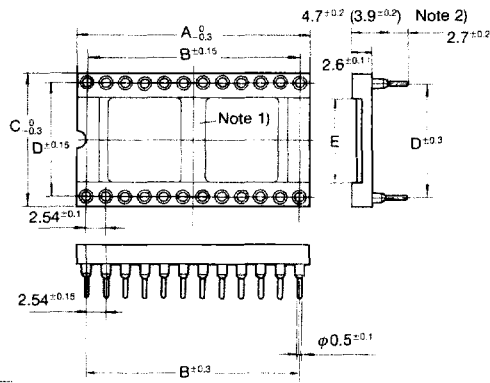
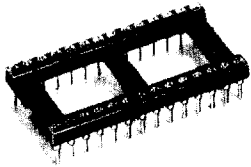
Sample: 56 terminals (28 contacts, 2 pcs.)
 Conditions: Ambient temperature 125°C±5°C



AXS(1)

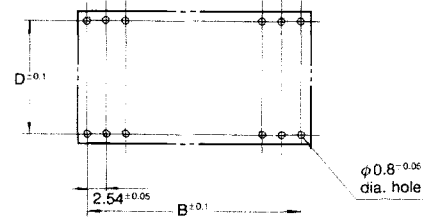
DIMENSIONS

- Solder-dip type
- 1) Standard type (4.2mm)
- 2) Low profile type (3.9mm)



mm General tolerance: ± 0.3

PC board pattern (mounting pat layout)



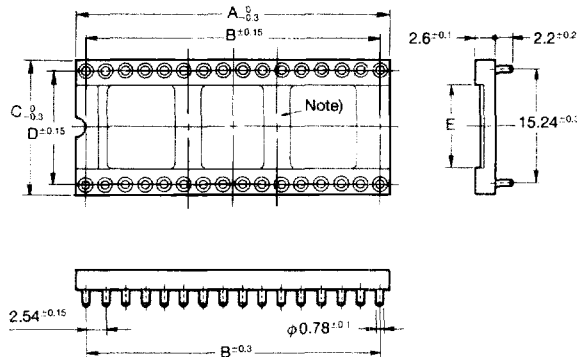
- Notes) 1. Rib is not provided for 8, 14 and 16 pins; 1 rib is provided for 18, 20, 22, 24 and 28 pins; 2 ribs are provided for 32, 36 40 and 48 pins; 4 ribs are provided for 64 pins.
2. Dimensions of low profile will be 3.9mm ± 0.2 .

Dimension table (mm)

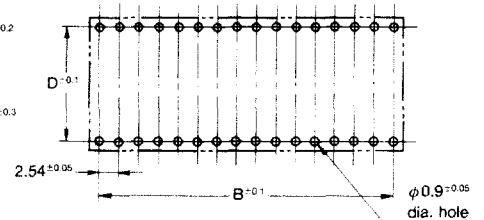
No. of contacts	A	B	C	D	E
8	10.16	7.62	10.16	7.62	4.3
14	17.78	15.24	10.16	7.62	4.3
16	20.32	17.78	10.16	7.62	4.3
18	22.86	20.32	10.16	7.62	4.3
20	25.4	22.86	10.16	7.62	4.3
22	27.94	25.4	12.7	10.16	6.4
24 ^{*1}	30.48	27.94	17.78	15.24	11.2
24 ^{*2}	30.48	27.94	10.16	7.62	4.3
28	35.56	33.02	17.78	15.24	11.2
32	40.64	38.1	17.78	15.24	11.2
36	45.72	43.18	17.78	15.24	11.2
40	50.8	48.26	17.78	15.24	11.2
48	60.96	58.42	17.78	15.24	11.2
64	81.28	78.74	25.4	22.86	17.8

- Notes) *1 Pitch: 15.24mm
*2 Pitch: 7.62mm

3) Low profile type (2.6mm)



PC board pattern (mounting pat layout)



- Notes) 1. Rib is not provided for 8, 14 and 16 pins; 1 rib is provided for 18, 20, 22, 24 and 28 pins; 2 ribs are provided for 32, 36 40 and 48 pins; 4 ribs are provided for 64 pins.
2. Dimensions of low profile will be 3.9mm ± 0.2 .

Dimension table (mm)

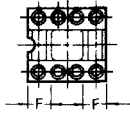
No. of contacts	A	B	C	D	E
8	10.16	7.62	10.16	7.62	4.3
14	17.78	15.24	10.16	7.62	4.3
16	20.32	17.78	10.16	7.62	4.3
18	22.86	20.32	10.16	7.62	4.3
20	25.4	22.86	10.16	7.62	4.3
22	27.94	25.4	12.7	10.16	6.4
24 ^{*1}	30.48	27.94	17.78	15.24	11.2
24 ^{*2}	30.48	27.94	10.16	7.62	4.3
28	35.56	33.02	17.78	15.24	11.2
32	40.64	38.1	17.78	15.24	11.2
36	45.72	43.18	17.78	15.24	11.2
40	50.8	48.26	17.78	15.24	11.2
48	60.96	58.42	17.78	15.24	11.2
64	81.28	78.74	25.4	22.86	17.8

- Notes) *1 Pitch: 15.24mm
*2 Pitch: 7.62mm

• Rib layout (for DIL type)

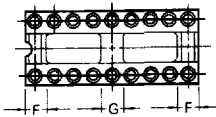
mm General tolerance: ± 0.3

8 to 16 contact



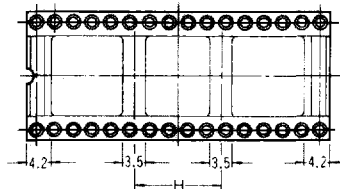
Dimension table (mm)	
No. of contacts	F
8	3.2
14	3.5
16	3.5

18 to 28 contact



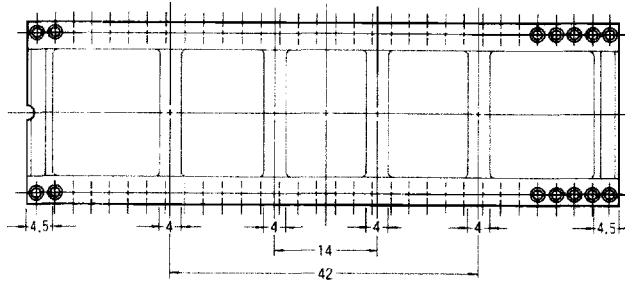
Dimension table (mm)		
No. of contacts	F	G
18	3.5	3.0
20	3.5	3.0
22	3.8	3.0
24	4.0	3.2
28	4.0	3.2

32 to 48 contact

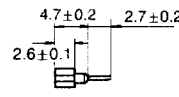
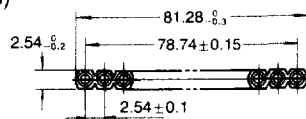
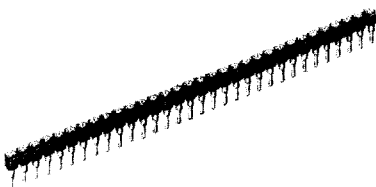


Dimension table (mm)	
No. of contacts	H
32	11.5
36	13.5
40	15.5
48	15.5

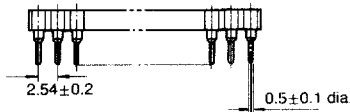
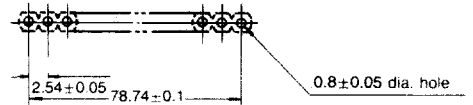
64 contact



4. SIL Solder-dip terminals (32 contacts)



PC board pattern (BOTTOM VIEW)

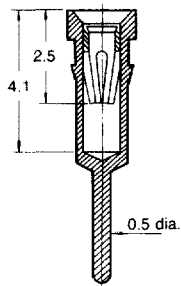


DIMENSIONS

• Terminal

(Common for DIL and SIL terminals)

Dip terminal



NOTES

- Do not use for inserting of leads other than of applicable dimension. There is the possibility of distorting the internal contacts.
- Because repeated flexing of the terminals can lead to the breakage of the terminal, care should be taken.
- Soldering should be done under the following conditions.
260°C: Within 10 seconds soldering bath
350°C: Within 3 seconds soldering iron
- Flux of the non-corroding rosin type should be used.
- Liquid flux of minimum chemical action type alcohol can be used.
- Sufficient care should be taken to prevent flux from entering the upper surface of the IC socket.
- Flux cleaning solution of the freon, alcohol, and chlorothene type should be used.
- Care should be taken to prevent entry of the cleaning solution into the contact internal section. Malfunction can result from solution entry.
- For mounting and removing the IC, a special tool for insertion and removal of IC's should be used.