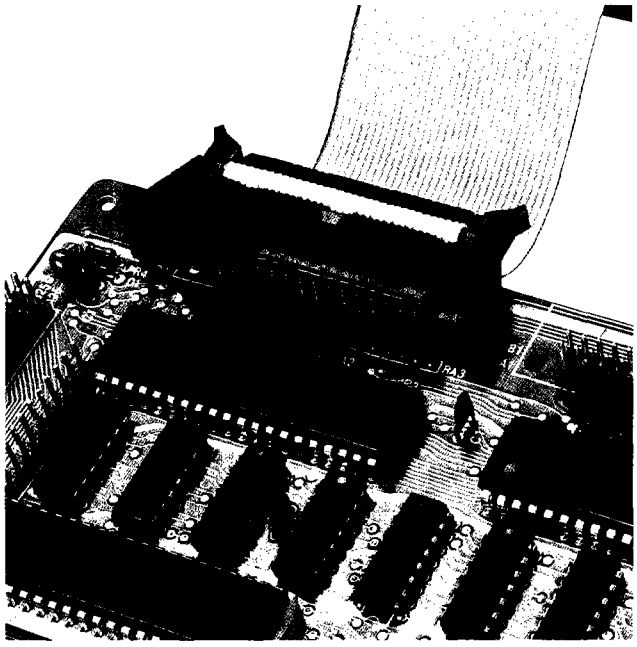
JST

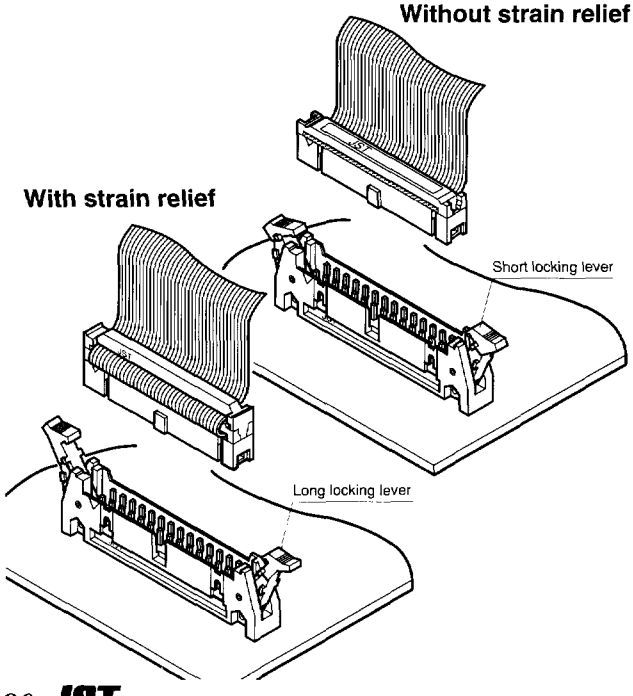
2.54mm (.100") pitch

RX CONNECTOR

Disconnectable insulation displacement connectors for 1.27mm (.050") pitch ribbon cables



Contemporary needs require that electronic equipment be high in density, modular in construction and multi-functional. In addition, the costs of such connection systems must be reduced. To meet these needs, particularly in the video and audio fields, we offer JST's highly reliable and cost-efficient RX connectors. These connectors reflect displacement connection technology as well as its advanced production techniques.



Features

• Conforms to MIL Standards

JST's RX connectors conform to MIL standards (MIL-C-83503) and are compatible with its RA connectors.

• Secure locking mechanism

The locking levers are engaged by inserting the receptacle into the header. This ensures a firm connection that's highly resistant to impact and vibration. To save space, JST has also made available short locking levers which provides a firm connection even when the receptacle has no strain relief.

• Cost-efficient

To reduce costs, only the mating sections of the receptacle contacts and header posts are gold-plated. JST's wealth of mass-production technology allows it to produce connectors that are extremely reliable and cost-efficient.

• Post suited for high-density patterns

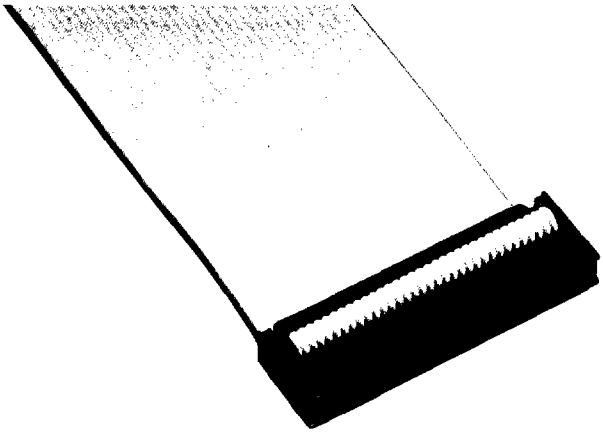
The mating section of the header post is 0.64mm (.025") square. The printed circuit board solder section of the post is 0.60mm (.024") in diameter. This small size greatly facilitates high-density design of printed circuit boards.

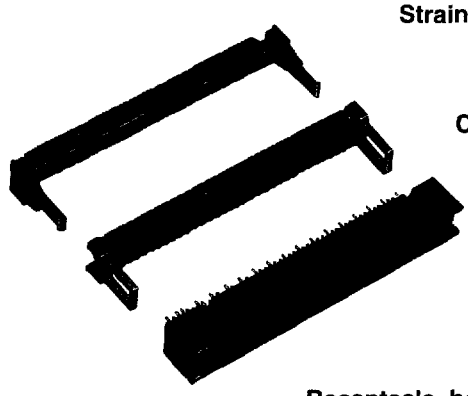
Standards

Recognized file No. E60389

Certified file No. LR20812

Receptacle





Specifications

Characteristics

Current rating	1.0A AC, DC
Voltage rating	300V AC, DC
Temperature range	(including temperature rise in applying electrical current) −55℃ to +125 ℃(gold-plated) −55℃ to +105 ℃(tin-plated)
Contact resistance	Initial value: 20mΩ max. After environmental testing: 30mΩ max.
Insulation resistance	5,000MΩ min.
Withstanding voltage	500V AC/5 seconds
Applicable wire	AWG #28, 1.27mm(.050") pitch ribbon cables

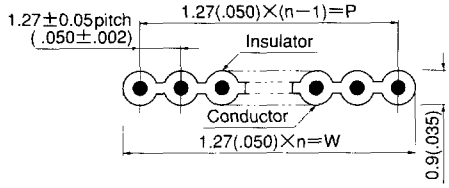
Materials

Contact	Phosphor bronze ·Nickel-undercoated Mating section: Gold-plated Insuation displacement section: Tin/lead-plated ·Copper-undercoated, tin/lead-plated
Receptacle housing	Glass-filled PBT, UL94V-0, black
Cover housing	Glass-filled nylon 66, UL94V-0, black
Strain relief	Glass-filled nylon 66, UL94V-0, black

**Contact JST details.*

Applicable cables

Ribbon cables conforming to the following specifications can be used with RX connector receptacles. Contact JST for details.



Conductor	AWG #28 stranded wire Contruction: 7/1.27mm(.005") dia. Material: Tin-plated annealed copper wire
	AWG #28 solid wire Contruction:0.32mm(.013") dia. Material: Tin-plated annealed copper wire
Insulator	Soft vinyl chloride

Number of conductors (n)	Dimensional tolerance mm(in.)	
	P	W
10 to 14	±0.18(±.007)	±0.3(±.012)
16 to 26	±0.28(±.011)	±0.3(±.012)
34 to 60	±0.38(±.015)	±0.3(±.012)

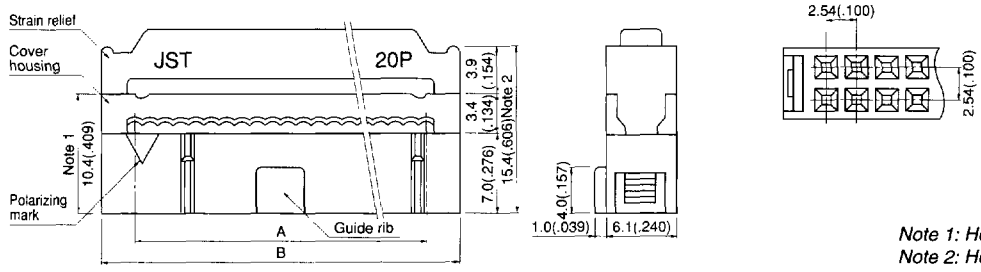
Model number identification

RX — S 50 1 S 1 3 10

- Series name
- Receptacle
- Number of circuits: 20, 34, 40, 50, 60
- Number of guide grooves: 1 ··· 20 to 60 circuits
- Connection method: S ... Short locking, through type
- With or without strain relief without : 0, with : 1
- Material of contact: 3 ··· Phosphor bronze for spring
- Surface finish
  10 ; Gold flash
  12 ; 0.2micron(8micro-inch)gold-plated
  13 ; 0.4micron(16micro-inch)gold-plated
  14 ; 0.76micron(30micro-inch)gold-plated
  90 ; Tin-plated

Note:
The standard gold-plated type is identified by the suffix number [-1310] but this suffix number is usually omitted. Other types must be identified by the full code number.

Receptacle

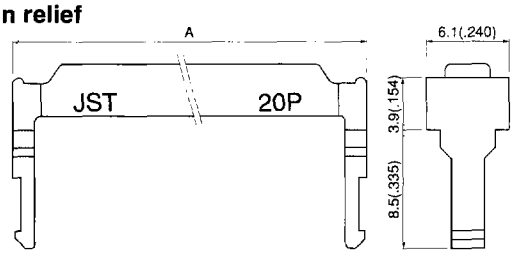


Note 1: Height without strain relief
Note 2: Height with strain relief

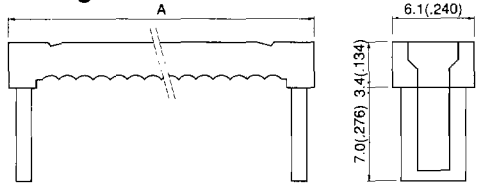
Circuits	Model number				Guide ribs	Dimensions mm(in.)		Q'ty / box
	Gold-plated receptacle		Tin-plated receptacle			A	B	
	With strain relief	Without strain relief	With strain relief	Without strain relief				
20	RX-S201S	RX-S201S-0310	RX-S201S-1390	RX-S201S-0390	1	22.86(.900)	30.00(1.181)	150
34	RX-S341S	RX-S341S-0310	RX-S341S-1390	RX-S341S-0390	1	40.64(1.600)	47.78(1.881)	100
40	RX-S401S	RX-S401S-0310	RX-S401S-1390	RX-S401S-0390	1	48.26(1.900)	55.40(2.181)	100
50	RX-S501S	RX-S501S-0310	RX-S501S-1390	RX-S501S-0390	1	60.96(2.400)	68.10(2.681)	75
60	RX-S601S	RX-S601S-0310	RX-S601S-1390	RX-S601S-0390	1	73.66(2.900)	80.80(3.181)	75

Strain relief and cover housing

Strain relief



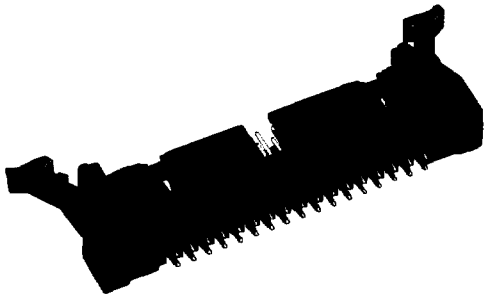
Cover housing



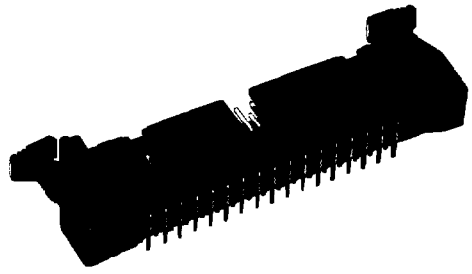
Circuits	Model number		Dimension A mm(in.)
	Strain relief	Cover housing	
20	RX-SR20T	RX-CH20S	30.00(1.181)
34	RX-SR34T	RX-CH34S	47.78(1.881)
40	RX-SR40T	RX-CH40S	55.40(2.181)
50	RX-SR50T	RX-CH50S	68.10(2.681)
60	RX-SR60T	RX-CH60S	80.80(3.181)

Shrouded header

Top entry type
with long locking lever



Side entry type
with short locking lever



Specifications

Characteristics

Current rating	1.0A AC, DC
Voltage rating	300V AC, DC
Temperature range	(including temperature rise in applying electrical current) −55℃ to +125 ℃(gold-plated) −55℃ to +105 ℃(tin-plated)
Insulation resistance	5,000MΩ min.
Withstanding voltage	500V AC/5 seconds
Applicable PC board thickness	1.6mm(.063")

Materials

Contact	Brass ·Nickel-undercoated Mating section: Gold-plated Solder tail: Tin/lead-plated ·Copper-undercoated, tin/lead-plated
Housing	Glass-filled PBT, UL94V-0, black
Locking lever	Glass-filled PBT, UL94V-0, black

Note: Contact JST for details.

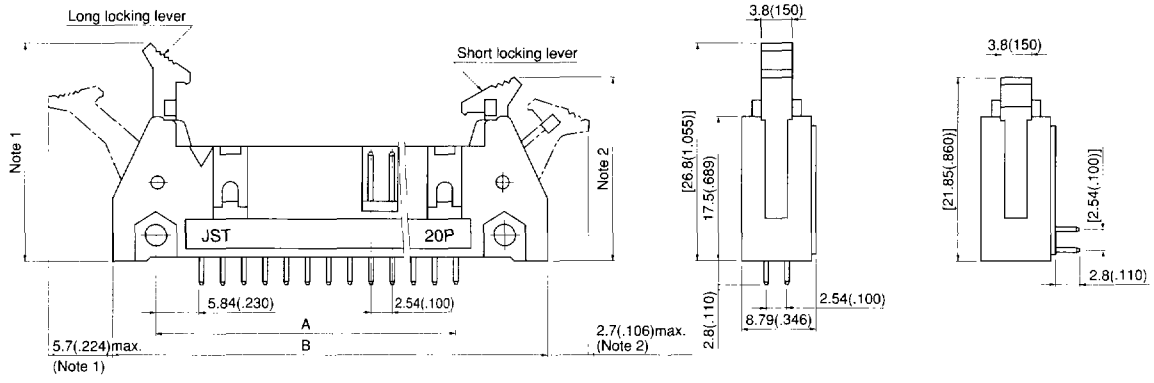
Model number identification

RX — H 50 1 TD 1 1 10

- Series name
- Header
- Number of circuits: 20, 34, 40, 50, 60
- Number of guide grooves: 1 ··· 20 to 60 circuits
- Mounting method: TD ... Top entry, SD ··· Side entry
- Type of locking lever: 0 ··· Without locking cover
  1 ··· Long locking lever
  2 ··· Short locking lever
- Material and shape of post:
  1 ··· Brass, 0.60mm (.024") diameter pin at soldering section
- Surface finish
  10 ; Gold flash
  12 ; 0.2micron(8micro-inch)gold-plated
  13 ; 0.4micron(16micro-inch)gold-plated
  14 ; 0.76micron(30micro-inch)gold-plated
  90 ; Tin-plated

Note:
The standard gold-plated type is identified by the suffix number [-1110] but this suffix number is usually omitted. Other types must be identified by the full code number.

Top entry type **Side entry type**

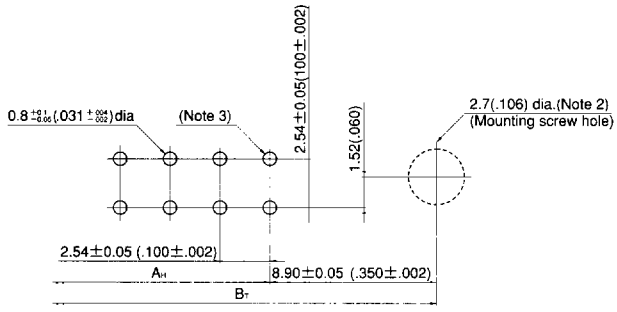


Note 1: With long locking levers
Note 2: With short locking levers

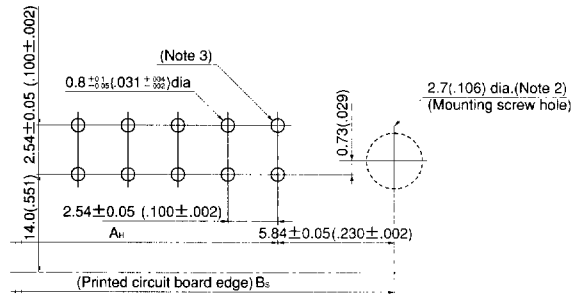
Circuits		Model number				Guide grooves	Dimensions mm(in.)		Q'ty / box
		Gold-plated header		Tin-plated header			A	B	
		Top entry type	Side entry type	Top entry type	Side entry type				
20	Long	RX-H201TD	RX-H201SD	RX-H201TD-1190	RX-H201SD-1190	1	22.86(.900)	44.66(1.758)	50
	Short	RX-H201TD-2110	RX-H201SD-2110	RX-H201TD-2190	RX-H201SD-2190	1			
34	Long	RX-H341TD	RX-H341SD	RX-H341TD-1190	RX-H341SD-1190	1	40.64(1.600)	62.44(2.458)	25
	Short	RX-H341TD-2110	RX-H341SD-2110	RX-H341TD-2190	RX-H341SD-2190	1			
40	Long	RX-H401TD	RX-H401SD	RX-H401TD-1190	RX-H401SD-1190	1	48.26(1.900)	70.06(2.758)	25
	Short	RX-H401TD-2110	RX-H401SD-2110	RX-H401TD-2190	RX-H401SD-2190	1			
50	Long	RX-H501TD	RX-H501SD	RX-H501TD-1190	RX-H501SD-1190	1	60.96(2.400)	82.76(3.258)	25
	Short	RX-H501TD-2110	RX-H501SD-2110	RX-H501TD-2190	RX-H501SD-2190	1			
60	Long	RX-H601TD	RX-H601SD	RX-H601TD-1190	RX-H601SD-1190	1	73.66(2.900)	95.46(3.758)	25
	Short	RX-H601TD-2110	RX-H601SD-2110	RX-H601TD-2190	RX-H601SD-2190	1			

PC board layout (viewed from component side)

Top entry type



Side entry type



Circuits	Dimensions mm(in.)		
	A_H	B_T	B_S
20	22.86(.900)	40.66(1.601)	34.54(1.360)
34	40.64(1.600)	58.44(2.301)	52.32(2.060)
40	48.26(1.900)	66.06(2.601)	59.94(2.360)
50	60.96(2.400)	78.76(3.101)	72.64(2.860)
60	73.66(2.900)	91.46(3.601)	85.34(3.360)

Note:

1. *Tolerances are non-cumulative: ±0.05mm(±.002") for all centers.Hole dimensions differ according to the kind of PC board and piercing method. The dimensions above should serve as a guideline. Contact JST for details.*
2. *The mounting screw holes are required for mounting headers on printed circuit boards but are not required for standard header.*
3. *This is normally the No. 1 circuit position.*