

DW-5

Hybrid connector for discrete wire and FPC, height = 1.0 mm, 0.5 mm pitch, horizontal, backflip



Product Specifications:		Plug	Receptacle	Applicable FPC/FFC:	
Board Pitch (mm)		0.5		FPC/FFC Contact Pitch	0.5
Wiping Length (mm)		1		FPC/FFC Contact Point	Top and Bottom
Size (mm)	Height	1.0 +/- 0.1		FPC/FFC Thickness (mm)	0.2 +/- 0.03
	Width	Formula: $3.8+(0.5*p)$	Formula: $3.7+(0.5*p)$		
	Depth	Open: Mating FPC : 3.0 Mating PLUG CABLE : 4.9 Close: Mating FPC : 3.5 Mating PLUG CABLE : 5.39			
Pin counts	Range	6-20 (even)			
	Available	6, 8, 10			

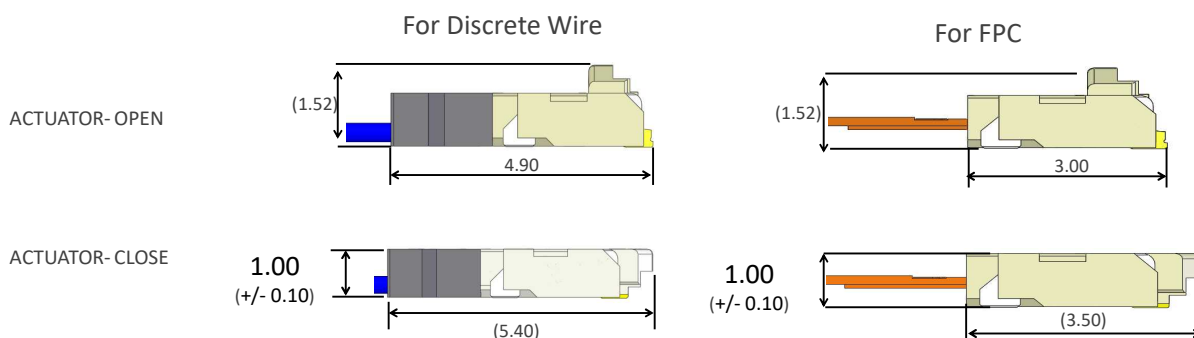
* Please inquire for pin counts not listed or outside of the pin count range.

► Hybrid connector for discrete wire and FPC

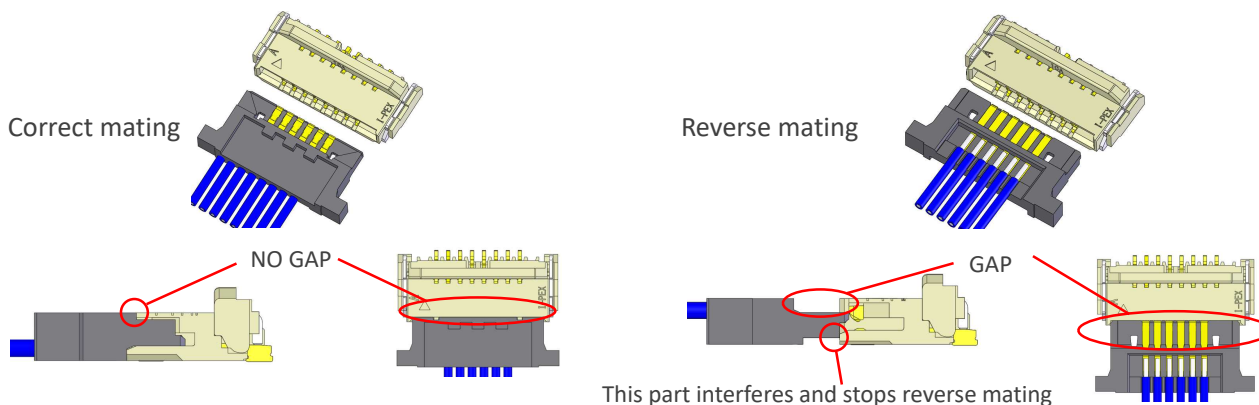


► Smallest in class at 1.0 mm height

Very low height of 1.00 mm, world's smallest class 6p dimension



► Anti-reverse mating structure reduces operational error



Component Parts Details

Plug for Cable Assembly

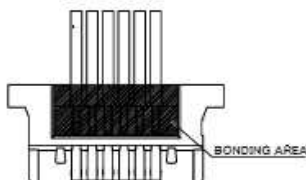
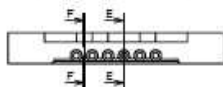
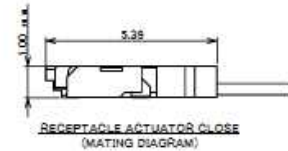
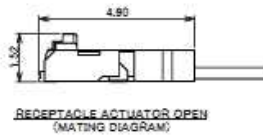
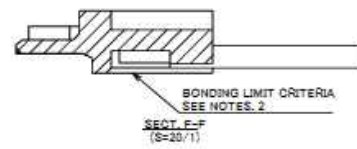
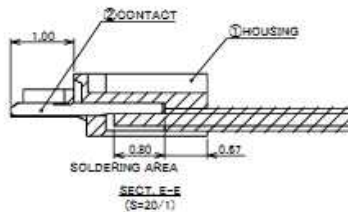
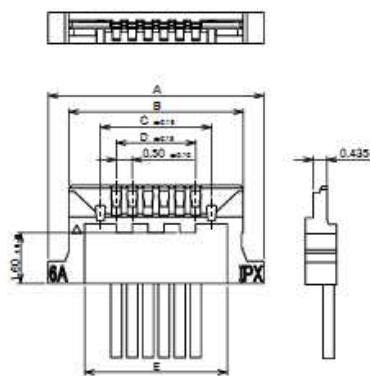
Recommended P/N 20598-0**T-02



CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HM-14010 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

PART No.	POS	A	B	C	D	E
20598-004T-02	6	6.50	5.50	3.50	2.50	4.50
20598-008T-02	8	7.80	6.50	4.50	3.50	5.50
20598-010T-02	10	8.80	7.50	5.50	4.50	6.50
◆20598-020T-02	20	13.80	12.50	10.50	9.50	11.50

◆MARK MEANS NOT AVAILABLE



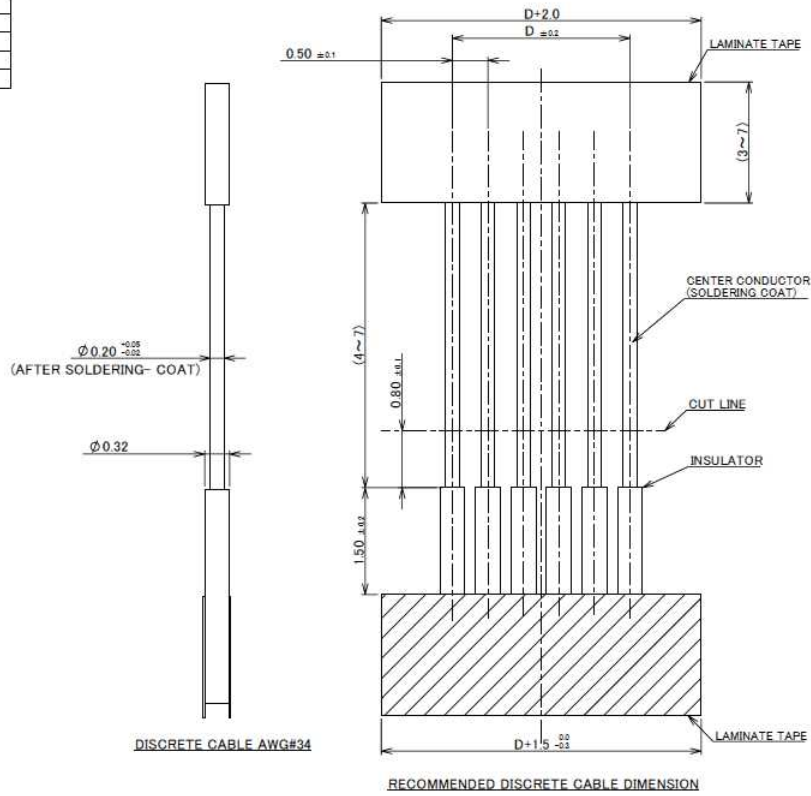
NOTES:
1. DO NOT PULL THE CABLE WHEN UN-MATING CONNECTORS.
2. BONDING MUST NOT EXCEED THE LIMIT CRITERIA.

TABLE 1		FINISH	
PART NO.	20598-0**T-02	CONTACT AREA :	Au 0.1 µm MIN. OVER Ni 1.0 µm MIN.
		SOLDERING AREA :	Au 0.03 µm MIN. OVER Ni 1.0 µm MIN.
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE 1
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS

Plug for Cable Assembly

PART No.	POS.	D
20598-006T-02	6	2.50
20598-008T-02	8	3.50
20598-010T-02	10	4.50
◆20598-020T-02	20	9.50

◆ MARK MEANS NOT AVAILABLE



Rev.3

ITEMS	SPECIFICATION
APPLICABLE CABLE	DISCRETE : AWG#34
RATING VOLTAGE	50V AC (PER A CONTACT)
RATING AMPERAGE	0.7A DC [AWG#34] (PER A CONTACT)
OPERATING TEMPERATURE	233~358K(-40°C~85°C)
OPERATING HUMIDITY	80% MAX (NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 40mohm MAX / AFTER TEST : $\angle 20$mohm MAX
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN / AFTER TEST : 500Mohm MIN
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	20TH CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20TH CYCLES : $0.6N(61gf) \times (n+2)$ MAX
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20TH CYCLES : $0.05N(5gf) \times (n+2)$ MIN
PLUG RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL : $0.15N(15gf) \times n + 2.0N$ MIN / AFTER TEST : $0.15N(15gf) \times n + 1.0N$ MIN
PRODUCT SPECIFICATION	PRS-1880
TEST REPORT	TR-13103
PACKING STANDARD	PST-14006
INSTRUCTION MANUAL	HIM-14010
ASSEMBLY MANUAL	ASM-12002

※ "n" IS THE NUMBER OF PIN

Rev.3

Receptacle for Cable Assembly

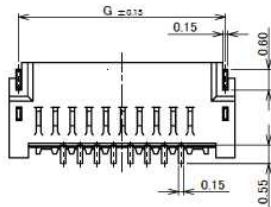
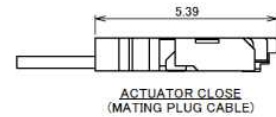
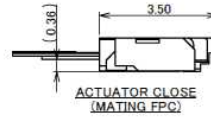
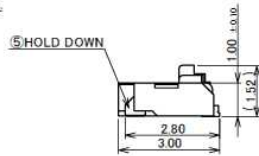
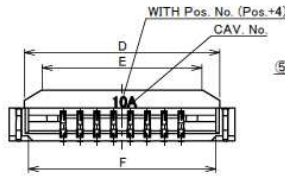
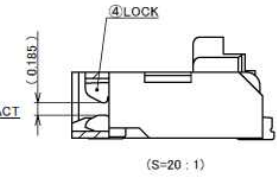
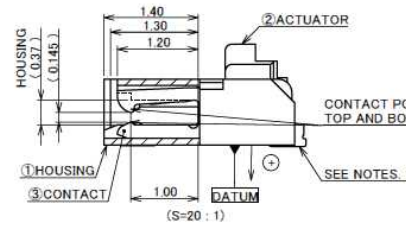
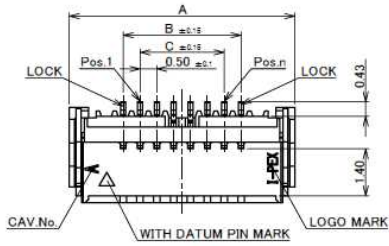
Recommended P/N 20597-0**E-02



CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-14010 AND HIM-12019 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

PART No.	POS.	A	B	C	D	E	F	G
20597-006E-02	6	6.70	3.50	2.50	5.80	4.80	5.56	6.15
20597-008E-02	8	7.70	4.50	3.50	6.80	5.80	6.56	7.15
20597-010E-02	10	8.70	5.50	4.50	7.80	6.80	7.56	8.15
◆20597-020E-02	20	13.70	10.50	9.50	12.80	6.80	12.56	13.15

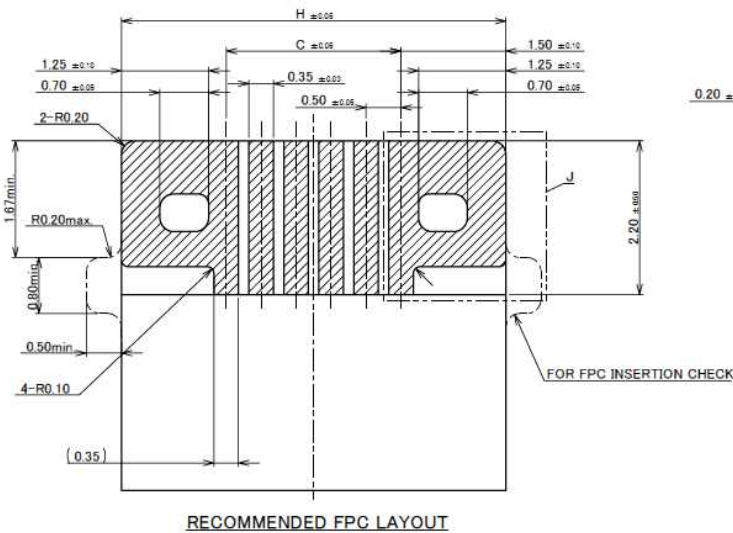
◆MARK MEANS NOT AVAILABLE



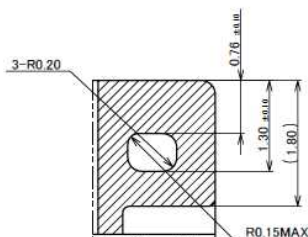
5	HOLD DOWN	PHOSPHOR BRONZE	Sn 2~6 μm MIN OVER Ni 1.0 μm MIN
4	LOCK	PHOSPHOR BRONZE	Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
3	CONTACT	PHOSPHOR BRONZE	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.0 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE

NOTES
1. CONTACT TAIL IS PROJECTION FROM HOUSING IN THE + DIRECTION. (0~0.06)

Rev.7



RECOMMENDED FPC LAYOUT

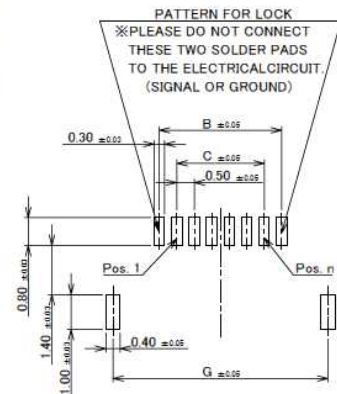
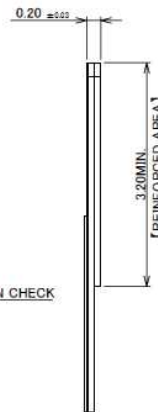


DETAIL J
(S=20/1)

NOTES
2.MATERIAL
COVER FILM : PI
CONDUCTOR : COPPER(RARE)
BASE FILM : PI
STIFFENER : PI
ADHESIVE : THERMOSETTING ADHESIVE
3.FINISH
Au OVER Ni PLATING.

PART No.	POS.	B	C	G	H
20597-006E-02	6	3.50	2.50	6.15	5.50
20597-008E-02	8	4.50	3.50	7.15	6.50
20597-010E-02	10	5.50	4.50	8.15	7.50
◆20597-020E-02	20	10.50	9.50	13.15	12.50

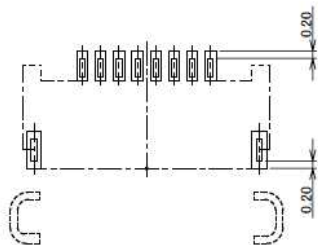
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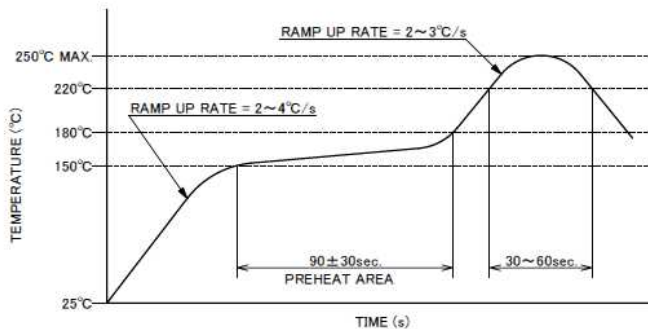
RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm

Rev.7

Receptacle for Cable Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



REFLOW TEMPERATURE PROFILE
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

Rev.7

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.5A DC [FPC] (PER CONTACT) 0.7A DC [AWG#34] (PER CONTACT)
OPERATING TEMPERATURE	233~358K(-40°C~85°C)
OPERATING HUMIDITY	80% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 40mohm MAX. / AFTER TEST : \leq 20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000mohm MIN. / AFTER TEST : 500Mohm MAX. (PLUG CABLE) 100mohm MIN. (FPC)
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	20TH CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : $0.6N(61gf) \times (n + 2)$ MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : $0.05N(5gf) \times (n + 2)$ MIN.
PLUG AND FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL : $0.15N(15gf) \times n + 2.0N$ MIN. / AFTER TEST : $0.15N(15gf) \times n + 1.0N$ MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-1880
TEST REPORT	TR-13103
PACKING STANDARD	PST-13047
INSTRUCTION MANUAL	HIM-14010 (FOR MATING PLUG CABLE) HIM-12019 (FOR MATING FPC)
APPEARANCE CRITERIA No.	QLS-A***

※ "n" IS THE NUMBER OF PIN

Rev.7

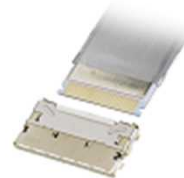
Board to Board



High-Density



Autolocking FPC/FFC



High-Density



FPC/FFC



Micro-Coaxial / Discrete Cable



High-Speed



RF



High-Frequency



Optical Module



High-Speed



Power



High-Power



I/O (Input/Output)



Quick charge

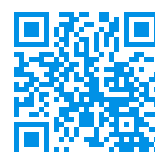


Effector



Custom Connectors Available

Inquiry



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