

AP-10

High-power supply terminal, high heat resistance board-to-board connection. Contribute to miniaturization of automotive chargers, height differences can be customized.

Product Specifications:

Mating type		Vertical
Wiping Length (mm)		2.55 (Plug: 7.5) 4.80 (Plug: 14.5)
Size (mm)	Height (mm)	13.6 ~ 16.1 (Plug: 7.5) 16.1 ~ 23.1 (Plug: 14.5)
		7.6 (Rece)
	Width (mm)	3.4 (Plug: 7.5) 5.2 (Plug: 14.5)
		3.4 +/- 0.2 (Rece)
	Depth	6.0 +/- 0.1 (Plug: 7.5) 7.6 +/- 0.1 (Plug: 14.5)

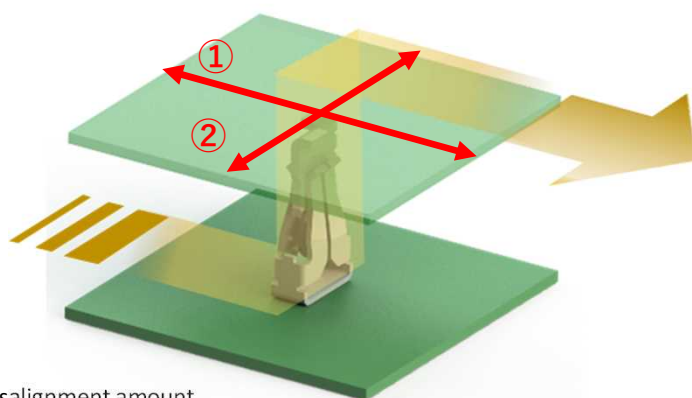
* Please inquire for pin counts not listed or outside of the pin count range.

Product Specifications:

Operating Temperature	-40 - 105°C
Mating force	15N Max.
Contact resistance	1.0 mΩ Max.



High current and temperature resistance, board-to-board power supply terminal

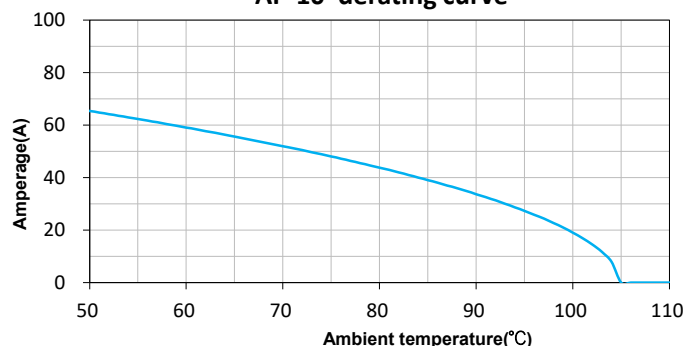


Misalignment amount

① X-axis: 0.55 mm

② Y-axis: 0.70 mm

AP-10 derating curve



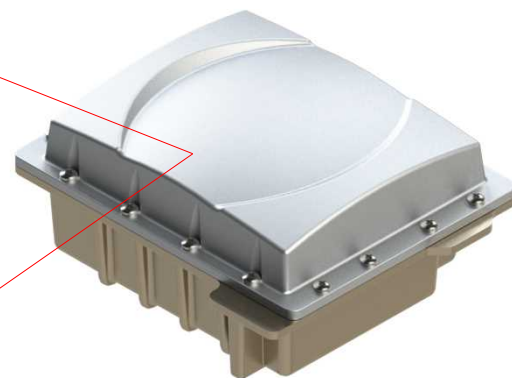
*The above results are actual measurement results under the test conditions specified by I-PEX.

*The results depend on the operating environment, so please contact us for details.

Contribute space-saving design on PCB achieved by miniaturization of connector

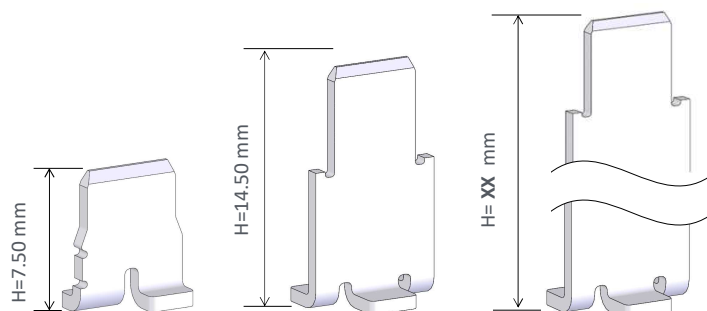
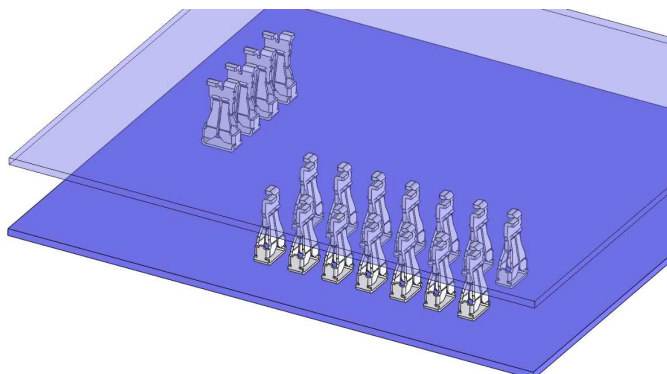
Comparison with traditional connect methods

Category	Bus bar	BtoB connector
Drawing		
Size wise	X	O
Tact wise	△	O



Suitable for automotive battery chargers

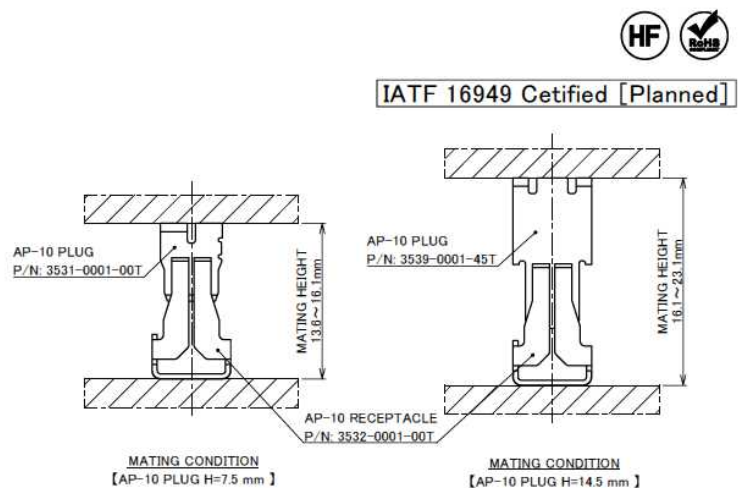
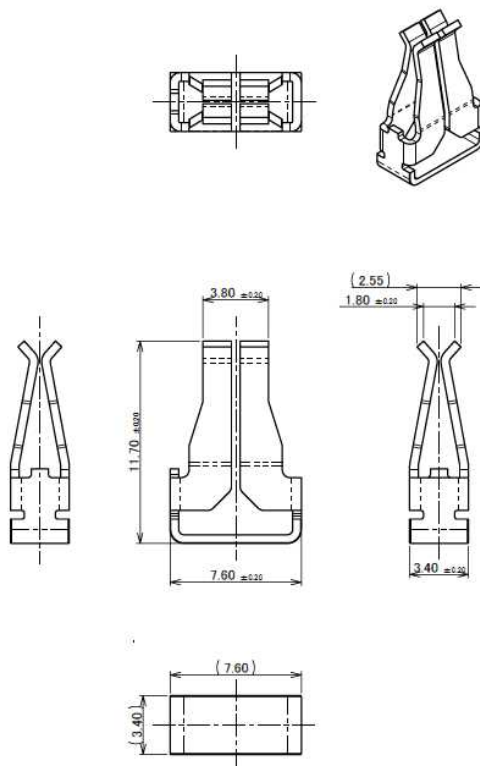
Dealing with custom made design



Component Parts Details

AP Series Receptacle

Recommended P/N	3532-0001-00T
PART NO.	3532-0001-00T

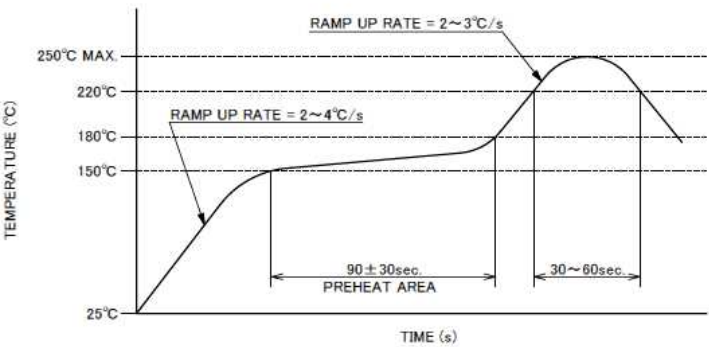
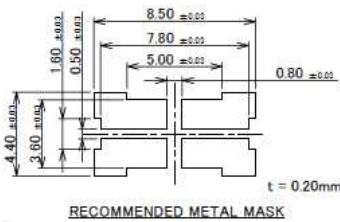
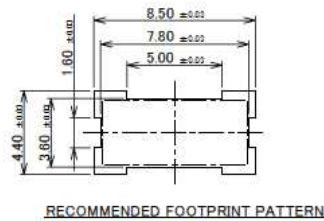


NOTES.
1. APPLICABLE CONNECTOR
AP-10 PLUG H=7.5 mm (P/N: 3531-0001-00T)
AP-10 PLUG H=14.5 mm (P/N: 3539-0001-45T)

NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
1	RECEPTACLE	COPPER ALLOY	Sr 1.00~4.50 μm OVER Ni 1.00~4.50 μm

AP Series Receptacle

PART NO.
3532-0001-00T



SENJU METAL INDUSTRY CO., LTD. · M705-SHF(Sn96.5 Ag3.0 Cu0.5)

Rev.5

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	3531-0001-00T 3539-0001-45T
RATING AMPERAGE	16A DC
TEMPERATURE RISE	△15.0°C Max.
COMPONENT TEMPERATURE(ENERGIZATION)	233~378K(-40°C~+105°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 1.0 mohm MAX. / AFTER TEST : 1.0 mohm MAX.
DURABILITY	3 CYCLES
MATING FORCE	15.0 N MAX.
COPLANARITY	0.10mm MAX.
PRODUCT SPECIFICATION	PRS-2616
TEST REPORT	TR-19063
PACKING STANDARD	PST-17121
APPEARANCE CRITERIA No.	QLS-A***

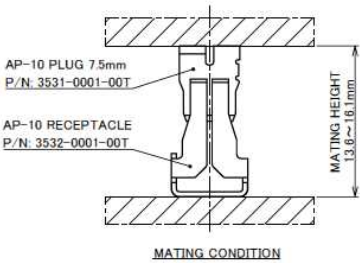
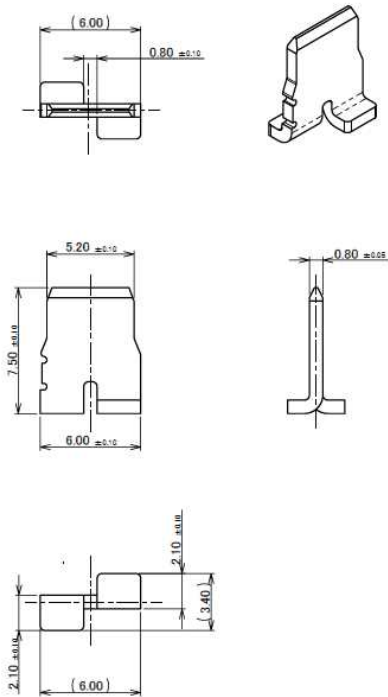
Rev.5

AP Series Plug

Recommended P/N	3531-0001-00T
PART NO.	
3531-0001-00T	



IATF 16949 Cetified [Planned]

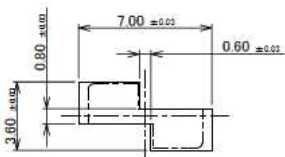


NOTES.
1. APPLICABLE CONNECTOR
AP-10 RECEPTACLE (P/N: 3532-0001-00T)

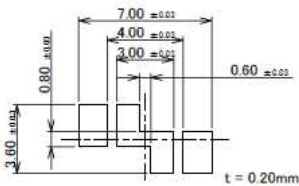
1	PLUG	BRASS	Sn 1.00 μ m ~ 4.50 μ m OVER Ni 1.00 μ m ~ 4.50 μ m
NO	DESCRIPTION	MATERIAL	FINISH , REMARKS

Rev.5

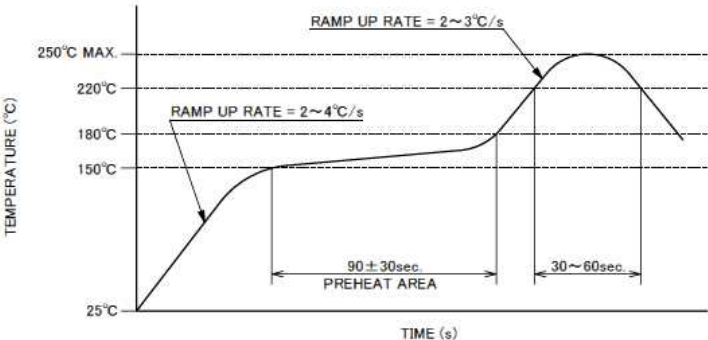
PART NO.
3531-0001-00T



RECOMMENDED FOOTPRINT PATTERN



RECOMMENDED METAL MASK



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

Rev.5

AP Series Plug

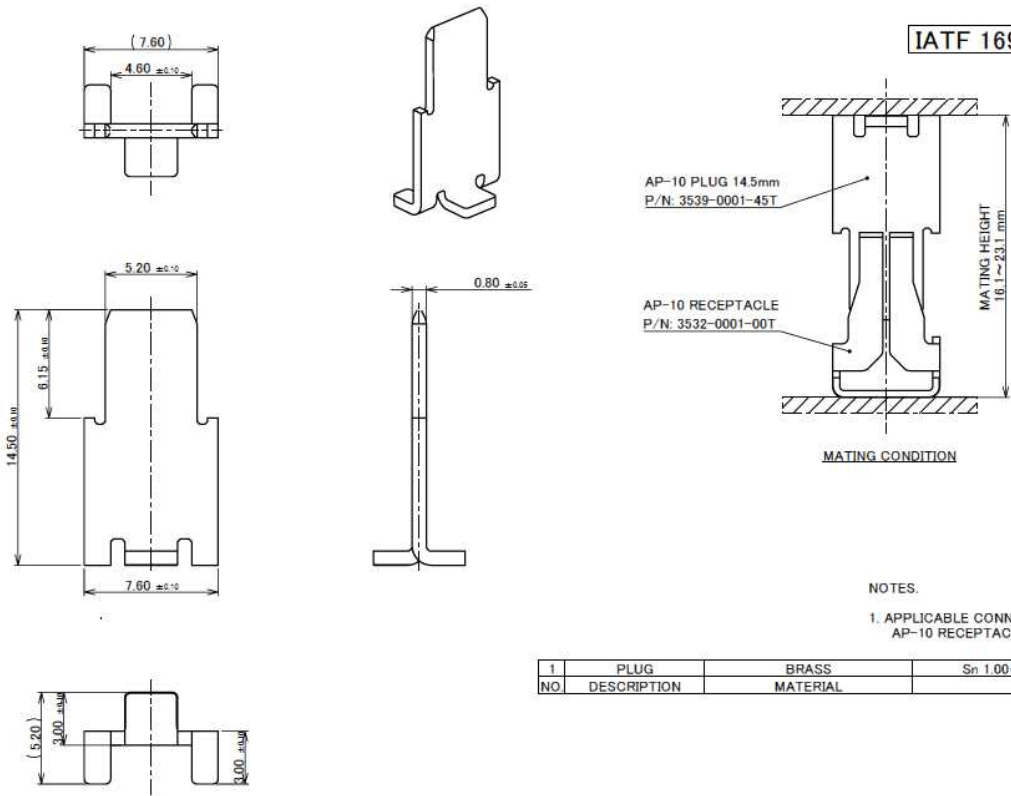
ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	3532-0001-00T
RATING AMPERAGE	16A DC
TEMPERATURE RISE	115.0°C MAX.
COMPONENT TEMPERATURE(ENERGIZATION)	233~378K(-40°C~+105°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 1.0 mohm MAX. / AFTER TEST : 1.0 mohm MAX.
DURABILITY	3 CYCLES
MATING FORCE/UNMATING FORCE	15.0 N MAX./15.0 N MAX.
COPLANARITY	0.10mm MAX.
PRODUCT SPECIFICATION	PRS-2616
TEST REPORT	TR-19063
PACKING STANDARD	PST-17120
APPEARANCE CRITERIA No.	QLS-A***

Rev.5

Recommended P/N	3539-0001-45T
PART NO.	
3539-0001-45T	



IATF 16949 Cetified [Planned]



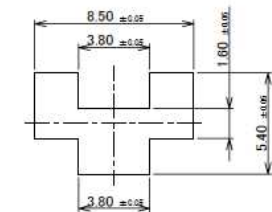
NOTES.
1. APPLICABLE CONNECTOR
AP-10 RECEPTACLE (P/N: 3532-0001-00T)

1	PLUG	BRASS	Sn 1.00~4.50 μm OVER Ni 1.00~4.50 μm
NO	DESCRIPTION	MATERIAL	REMARKS. FINISH

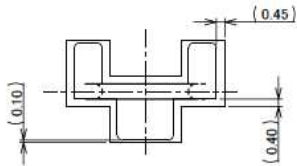
Rev.2

AP Series Plug

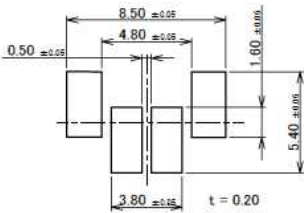
PART NO.
3539-0001-45T



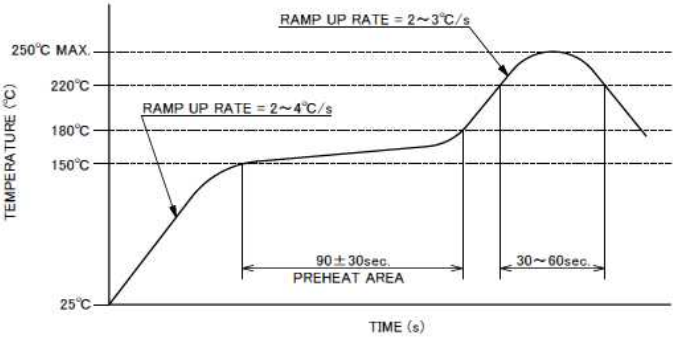
RECOMMENDED PATTERN LAYOUT



CONNECTOR ON RECOMMENDED PATTERN



RECOMMENDED METAL MASK LAYOUT



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

Rev.2

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	3532-0001-00T
RATING AMPERAGE	16A DC
TEMPERATURE RISE	Δ15.0°C MAX
COMPONENT TEMPERATURE (ENERGIZATION)	233~378K(-40°C~105°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 1.0 mohm MAX. / AFTER TEST : 1.0 mohm MAX.
DURABILITY	3 CYCLES
MATING FORCE/UNMATING FORCE	15.0 N MAX./15.0 N MAX.
COPLANARITY	0.10mm MAX.
PRODUCT SPECIFICATION	PRS-2616
TEST REPORT	TR-19063
PACKING STANDARD	PST-22010
APPEARANCE CRITERIA No.	QLS-A***

Rev.2

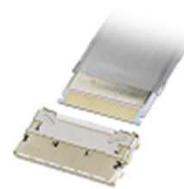
Board to
Board



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



I-PEX, MHF, CABLINE, NOVASTACK, EVAFLEX, MINIFLEX, ISH, IARPB, IASLP, ESTORQ, ISFIT, i-Fit and ZenShield are registered trademarks of I-PEX Inc. Please note that the contents in the catalog might be changed without prior notification. I-PEX Inc. assumes no responsibility for any inaccuracies or obligation to update information on these documents. Please be sure to read and understand the latest "Precautions for Use" and "Instruction Manual" before you use our products. We shall not be responsible for any defects, damages or troubles in case you use our products without following the precautions for use. Please feel free to contact our sales representatives when you use our products for any applications that require very high reliability and safety, or that relate to human life (ex. nuclear power control, aerospace, transportation, medical equipment, safety equipment etc.).

Contact your sales representative
or more detailed information.

www.i-pex.com



I-PEX

© I-PEX Inc. 2022
All rights reserved.