Stick Coupler

HD-02103AST Series

■Features

1.High Performance

Low insertion loss: 0.1 dB max. (Typical)

2.High Power Handling

200 W max. power handling capability. Efficient heat dissipation characteristic.

3.Extremely Small Size and Lightweight

Innovative Hirose Electric design of the case and cover is behind the extremely small size and lightweight.

4.Simple installation

Standard screw mounting and solder tabs allows direct mounting to planar circuits.

■Specifications

Ratings	Frequency range Characteristic impedance Maximum Input Power	1800 ～ 2200 MHz 50 ohms 200 W	Operating temperate range Operating relative humidity	0℃ to +80℃ 95% Max.

Note: The frequency range and the maximum input power will differ depending on the products.

Characteristic	Requirement	Conditions
1.Insulation resistance	1000M ohms Min.	DC 250V
2.Vibration	No electrical discontinuity of 1 μs or more No damage, cracks, or parts dislocation	Frequency of 10 to 2000 Hz, overall amplitude of 1.52 mm, acceleration of 98 m/s² for 2 hours in each of 3 directions
3.Shock		Acceleration of 490 m/s², sine half-wave waveform, 3 cycles in each of the 3 axis
4.Temperature cycle	No damage, cracks, or parts dislocation	Temperature: -55℃→+5℃ to +35℃→+85℃→+5℃ to +35℃
		Time: 30→5 max.→30→5 max. (Minutes)100 cycles
5.High temperature exposure		96 hours at 85℃
6.Low temperature exposure		96 hours at -55℃
7.Corrosion resistance	No serious corrosion	Exposed to 20% salt water solution for 48 hours
8.Sulfur dioxide gas	No damage, cracks, or parts dislocation	96 hours in 10 ppm concentration

●The test methods conform to MIL-STD-202.

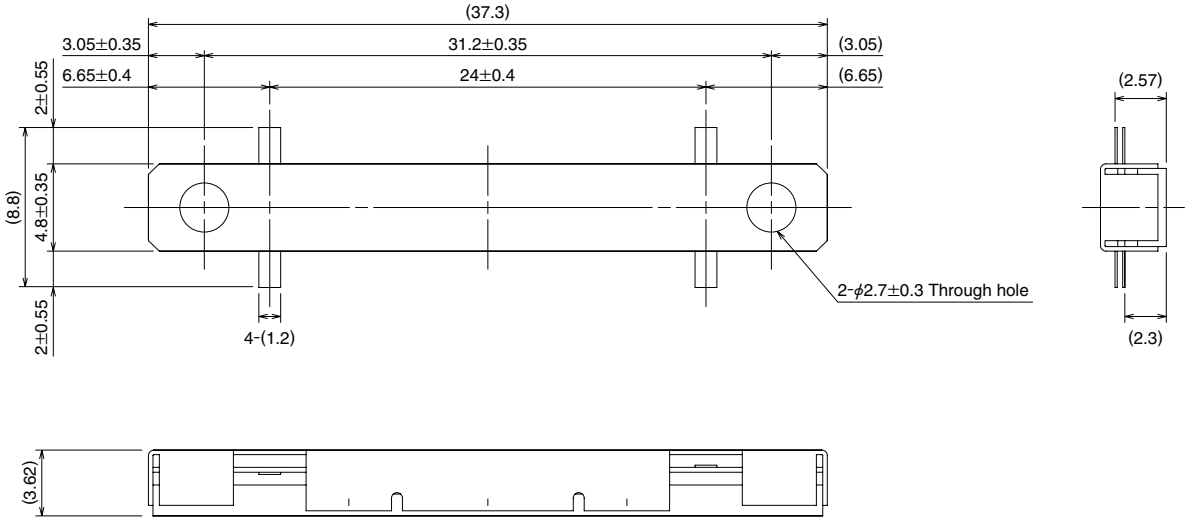
■Material

Component	Material	Finish
Cover	Aluminum	——
Case	Brass	Nickel Plated
Board	Dielectric	Gold plated
Tabs	Phosphor bronze	Gold plated

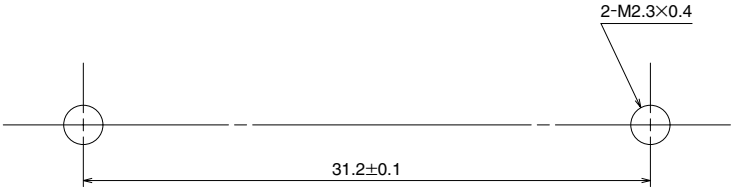
■Specifications

Part Number	Frequency Range (GHz)	Coupling (dB)	Frequency Sensitivity (dB)	Isolation (dB Min)	V.S.W.R. (Max)	Weight (g)	Power (W)	Fig.
HD-02103AST	1.8～2.2	$3^{+0.15}_{0}$	±0.3	23	1.2	2	200	1

■Dimensions

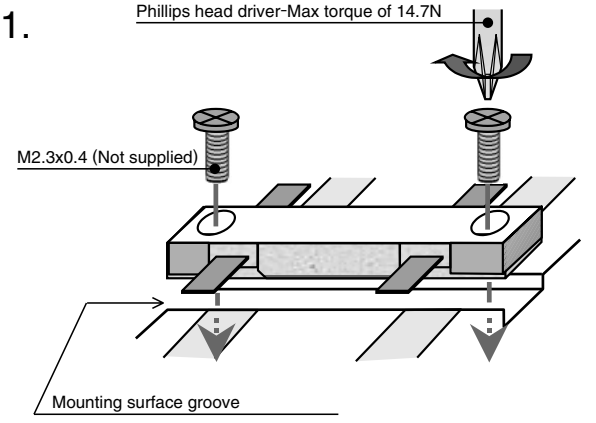


■PCB Mounting Pattern

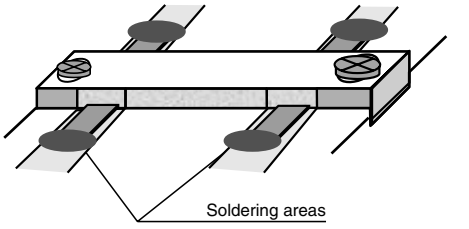


■Mounting Sequence

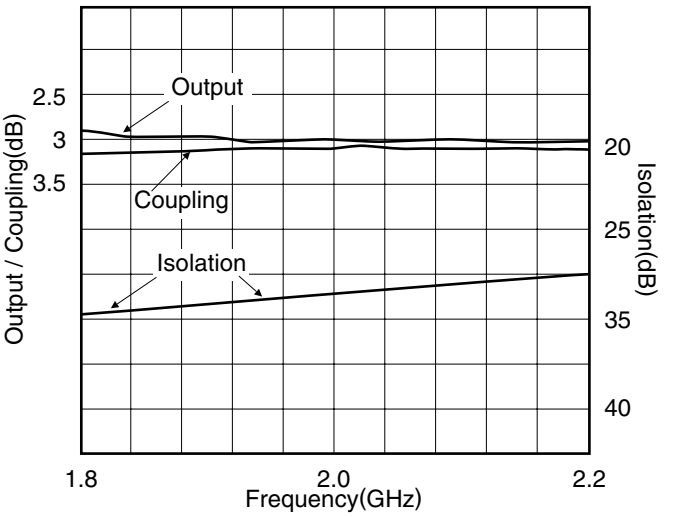
Step 1.

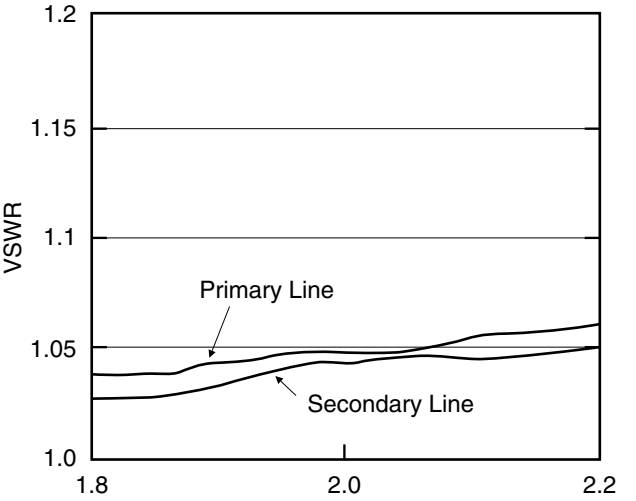


Step 2.
Tab soldering



■Typical Data





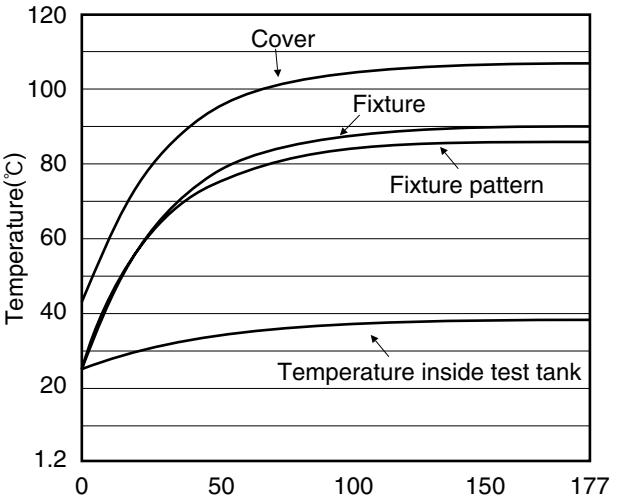
■200 W Power Test

Test fixture

Thermal resistance value

[Thermal resistance value : 9.0℃/W]

Frequency : 2.155GHz



Test Circuit