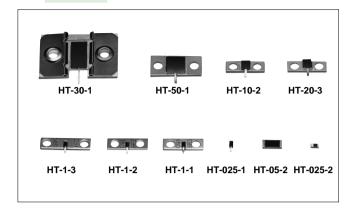


# **Stripline Mounting Non-reflective Terminations**

# **HT Series**



### **■**Features

### 1. High Performance

These super wide bandwidth/ultra high matching non-reflective termination use Hirose Electric original high frequency matching technology.

### 2.Equipped with Tabs

Termination are equipped with tabs to permit direct mounting to flat circuits.

3. Housing functions as a radiator to permit small size and high-density mounting.

# **■**Product Specifications

Ratings	Rated frequency range (Note) Characteristic impedance Maximum Input Power (Note)	DC to 15.0 GHz 50 ohms 0.25 to 50 W	Operating temperature range Operating relative humidity	-10℃ to +60℃ 95% Max.
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NOTE: The frequency range and the maximum input power will differ depending on the products.

### HT-025-1, HT-025-2, HT-05-2, HT-1-1, HT-1-2, HT-1-3, HT-10-2, HT-20-3, and HT-50-1

Item	Standard	Conditions
1.Vibration	No electrical discontinuity of 1 $\mu$ s or more	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
2.Shock	No damage, cracks, or parts dislocation	Acceleration of 490 m/s², sine half-wave waveform, 3 cycles in each of the 3 axis
3.Temperature cycle	No damage, cracks, or parts dislocation	Temperature: $-55^{\circ}$ C $\rightarrow +5^{\circ}$ C to $+35^{\circ}$ C $\rightarrow +85^{\circ}$ C $\rightarrow +5^{\circ}$ C to $+35^{\circ}$ C Time: $30 \rightarrow 15$ max. $\rightarrow 30 \rightarrow 15$ max. (Minutes) 200 cycles

<sup>●</sup>The test method conforms to MIL-STD-202.

#### HT-30-1

Item	Standard	Conditions
1.Vibration	No electrical discontinuity of 1 $\mu$ s or more	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
2.Shock	No damage, cracks, or parts dislocation	Acceleration of 294 m/s², sine half-wave waveform, 3 cycles in each of the 3 axis
3.Temperature cycle	No damage, cracks, or parts dislocation	Temperature: $-55^{\circ}$ C $\rightarrow +5^{\circ}$ C to $+35^{\circ}$ C $\rightarrow +120^{\circ}$ C $\rightarrow +5^{\circ}$ C to $+35^{\circ}$ C Time: $30 \rightarrow 15$ max. $\rightarrow 30 \rightarrow 15$ max. (Minutes) 200 cycles

<sup>●</sup>The test method conforms to MIL-STD-202.

#### ■Materials

### HT-025-1, HT-025-2, and HT-05-2

Part	Material	Finish
Tabs	Copper	Solder plating
Resistor	Metal film	

#### HT-30-1

Part	Material	Finish
Plate	Aluminum	Conductive alumite
Retaining plate	Phosphor bronze	Nickel plating
Tabs	Copper	Tin plating
Resistor	Metal film	

### HT-1-1, HT-1-2, and HT-1-3

Part	Material	Finish
Plate	Aluminum	Nickel plating
Tabs	Copper	Solder plating
Resistor	Metal film	

#### HT-10-2, HT-20-3, and HT-50-1

Part	Material	Finish
Plate	Copper	Nickel plating
Tabs	Copper	Silver plating
Resistor	Metal film	

# **■**Ordering Information

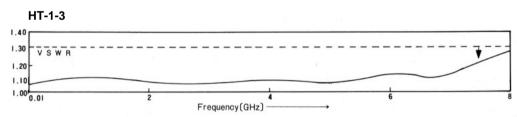
Series Name: HT Series	Suffix
2 Power	
(Example)0.25:0.25W	
1:1W	

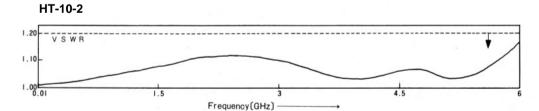
# **■**Specifications

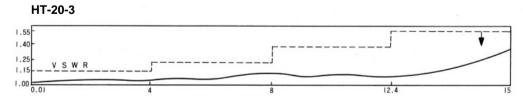
	Part Number	Frequnency Range (GHz)	V.S.W.R. (MAX)	Impedance (Ohms)	Power (W)	Heat Sink Temperature at Maximum Load (°C Max)	Heat Resistance (°C/W)	Weight (g)
	HT-025-1	DC-8	1.30	50	1/4	+65	50	0.1
	HT-025-2	DC-8	1.30	50	1/4	+65	50	0.1
	HT-05-2	DC-1	1.20	50	1/2	+65	150	0.3
	HT-1-1							
	HT-1-2	DC-8	1.30	50	1	+65	50	0.3
	HT-1-3							
	HT-10-2	DC-6	1.20	50	10	+65	9	0.3
$\Lambda$	HT-20-3	DC-15	1.15(DC-4GHz) 1.25(4-8GHz) 1.45(8-12.4GHz) 1.55(12.4-15GHz)	50	20	+65	3.8	0.6
	HT-30-1	DC-1	1.20	50	30	+65	3	3
$\Lambda$	HT-50-1	DC-5	1.25	50	50	+65	1.6	1.5

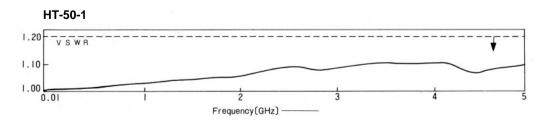
⚠ CAUTION: Beryllia is used in this product. Please follow associated laws when disposing.

# **■**Typical Data

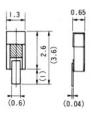




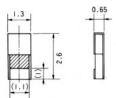




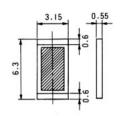
## **■**External Dimensions





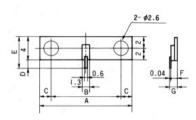


HT-025-2

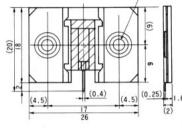


HT-05-2

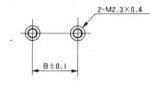
2- \$3.2



**PCB Mounting Pattern** 



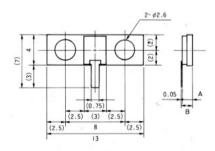
**PCB Mounting Pattern** 



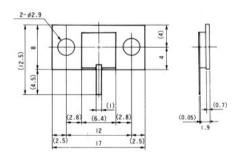
HT-1-1 · HT-1-2 · HT-1-3

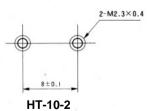
	1		2-M3	<u>×0.</u> 5
1.6	Φ-		•	
	17:	±0.1	-	
	нт	-30-1	l	

Part Number	Α	В	С	D	E	F	G
HT-1-1	13	8	2.5	1.4	5.4	1.45	1.49
HT-1-2	13	8	2.5	1.4	5.4	1.15	1.19
HT-1-3	16	12	2	1.4	5.4	1.45	1.49



#### **PCB Mounting Pattern**

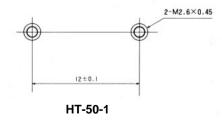




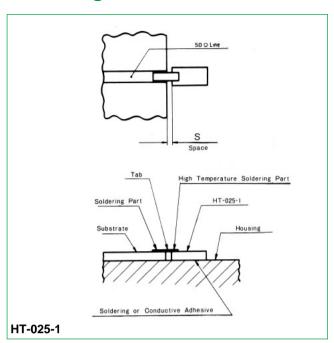
HT-20-3

Part Number	Α	В
HT-10-2	1.65	1.7
HT-20-3	2	2.05

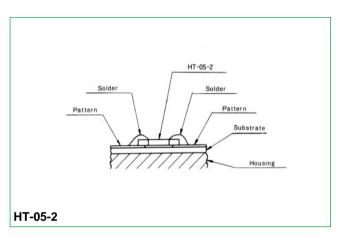
**PCB Mounting Pattern** 



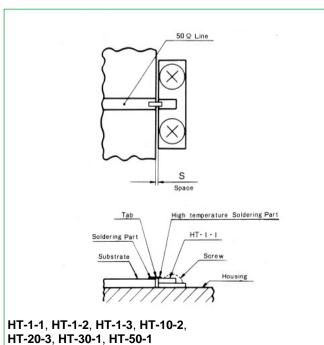
# **■**Mounting Method



- ●Do not leave a space between the terminator and the microstrip board.
- •Make the terminator tab height from the housing and the thickness of the microstrip board the same amount.
- ●Note: The HT-025-1 type is attached with high temperature solder (having a melting point of 280°C). The soldering temperature to the microstrip board must be less than this.



- •Mounting is performed by soldering over the microstrip line pattern.
- ◆The mounting should be completed by soldering within 5 seconds using Sn-Pb type eutectic solder containing 2 to 5% Ag with a soldering iron adjusted to about 260°C.
- •The resoldering of an item that has already been soldered once and then removed is not effective since solder cracks will develop at the electrode portion.



- Do not leave a space between the terminator and the microstrip board.
- Do not leave a space between the the microstrip board.
- Note: The HT-1-1, HT-1-2, HT-1-3, HT-10-2, HT-20-3, and HT-50-1 tabs are attached with high temperature solder (having a melting point of 280℃). The soldering temperature to the microstrip board must be less than this.

Note: Although the high frequency characteristics will deteriorate somewhat, please attach with some slack in the tabs in order to raise the thermal reliability.



# Terminations for the Division Part of a Wilkinson Divider (100 ohms Type)

# **HT Series**



### **■**Features

## 1. High Performance

These wide bandwidth/ultra high matching nonreflective termination use Hirose Electric original high frequency matching technology.

### 2.Equipped with Tabs

Termination are equipped with tabs to permit direct mounting to Wilkinson type flat circuits.

## 3. High Power and Small Size

Beryllia is used for the material of the resistance element to enable the termination to be of small size and used with high power.

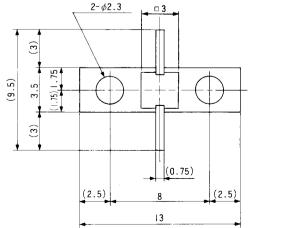
# **■**Product Specifications

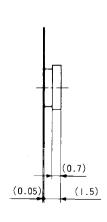
Item	Standard	Conditions
1.Vibration	No electrical discontinuity of 1 $\mu$ s or more No damage, cracks, or parts dislocation	Frequency of 10 to 2000 Hz, overall amplitude of 1.52 mm, acceleration of 98 m/s² for 2 hours in each of 3 directions
2.Shock		Acceleration of 490 m/s², sine half-wave waveform, 3 cycles in each of the 3 axis
3.Temperature cycle	No damage, cracks, or parts dislocation	Temperature: -55°C → +5°C to +35°C → +120°C → +5°C to +35°C Time: 30 → 15 max. → 30 →15 max. (Minutes) 200 cycles

### ■Material

Part	Material	Finish
Plate	Copper	Nickel plating
Tabs	Copper	Silver plating
Resistor	Metal film	

# **■**External Dimensions





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