



### Multilayer Balun

For 2400-2500MHz

## HHM1917A5

- 1.0x0.5mm [EIA 0402]\*
- \* Dimensions Code JIS[EIA]

### Caution

# The products in this catalog will be or have been stopped production

Discontinue Issue Date	Jun. 4, 2020	
Last Purchase Order Date	Dec. 31, 2021	
Last Shipment Date	Mar. 31, 2022	

Please refer to our Web site about replacement information.



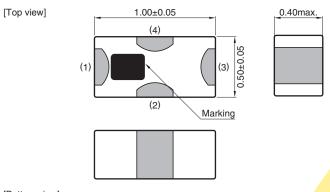
### **Multilayer Balun**

For 2400-2500MHz

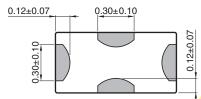
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#### **Conformity to RoHS Directive**

#### **SHAPES AND DIMENSIONS**



[Bottom view]

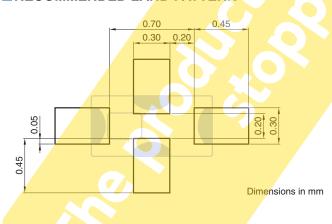


Terminal functions

- Balanced port
- Unbalanced port
- Balanced port
  GND or DC feed + RF GND

Dimensions in mm

#### ■ RECOMMENDED LAND PATTERN



RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://product.tdk.com/en/environment/rohs/

<sup>•</sup> All specifications are subject to change without notice.

<sup>•</sup> Before using these products, be sure to request the delivery specifications.



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### **ELECTRICAL CHARACTERISTICS**

Item	Frequency Range (MHz)	Min.	Тур. Мах.
Unbalanced Port Characteristic Impedance ( $\Omega$ )			50 (Nominal)
Balanced Port Characteristic Impedance (Ω)			50 (Nominal)
Return Loss at Unbalanced Port (dB)	2400 to 2500	10	- 7/5 -
Phase Balance (deg.)	2400 to 2500	165	<del>-</del> 195
Amplitude Balance (dB)	2400 to 2500	-1.2	- 1.2
Insertion Loss (dB)	2400 to 2500		<del>-</del> 0.7

### ■TEMPERATURE RANGE

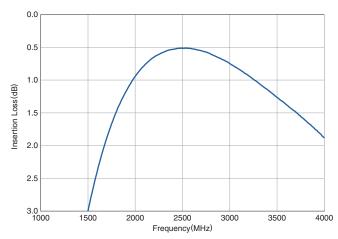
Operating temperature	Storage temperature
(°C)	(°C)
-40 to +85	-40 to +85

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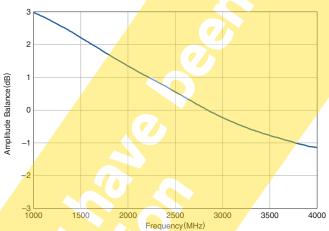
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### FREQUENCY CHARACTERISTICS

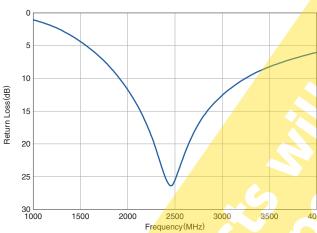
#### □INSERTION LOSS



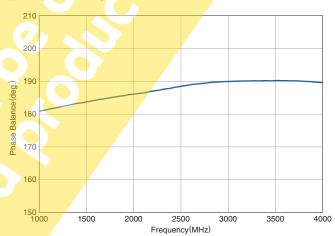
### AMPLITUDE BALANCE



#### □RETURN LOSS



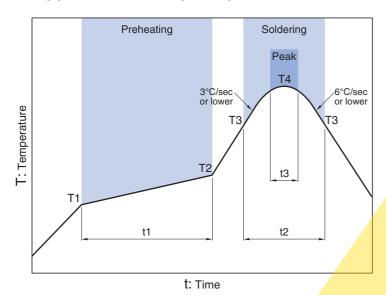
#### □PHASE BALANCE



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### ■ RECOMMENDED REFLOW PROFILE



Preheating		Soldering				
		Critical zone (T3 to T4)		Peak		
Temp.		Time	Temp.	Time	Temp.	Time
T1	T2	t1	Т3	t2	T4	t3*
150°C	200°C	60 to 120sec	217°C	60 to 120s	sec 240 to 260°C	30sec max.

\*t3: Time within 5°C of actual peak temperature

The maximum number of reflow is 3.

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### REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

### SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

### **⚠** REMINDERS

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this catalog.

- (1) Aerospace/Aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/ equipment or providing backup circuits, etc., to ensure higher safety.

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