



Jun. 2018 Ver.1.6  
TDK Corporation

## Multilayer Band Pass Filter

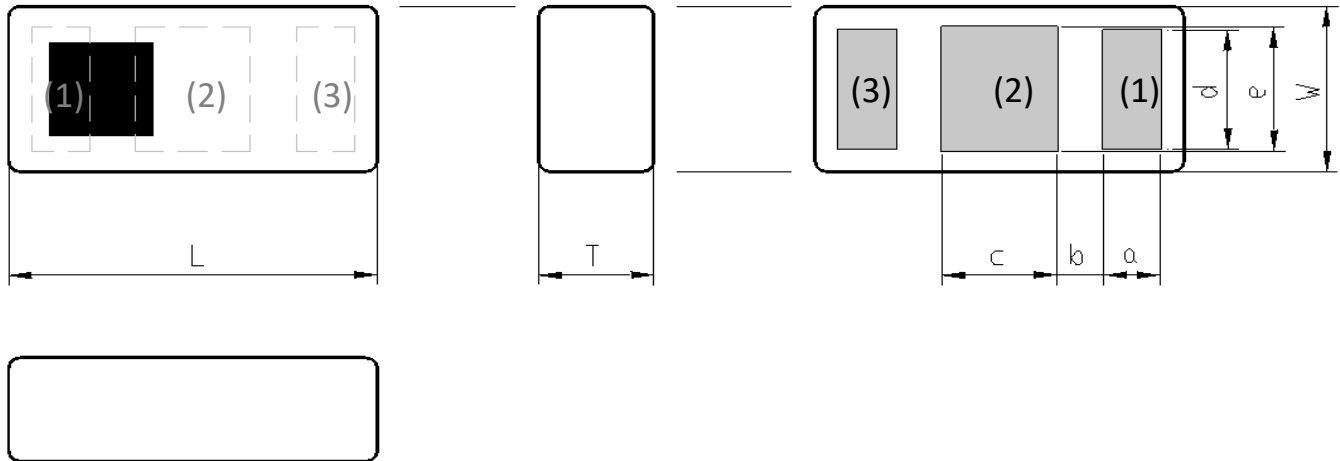
For 5GHz W-LAN

DEA Series 1.6x0.8mm [EIA 0603] TYPE

P/N: **DEA165538BT-2263A1-H**

## DEA165538BT-2263A1-H

### ■ SHAPES AND DIMENSIONS



Dimensions (mm)

L	W	T	a	b	c	d	e
1.60	0.80	0.65	0.25	0.23	0.40	0.55	0.60
+/-0.15	+/-0.10	Max	+/-0.10	+/-0.10	+/-0.10	+/-0.15	+/-0.15

Terminal functions

(1)	Input Port
(2)	GND
(3)	Output Port

### ■ TERMINATION FINISH

Material
Ag

## DEA165538BT-2263A1-H

### ■ ELECTRICAL CHARACTERISTICS

( Measurement )

Parameter	Frequency (MHz)	Specification		
		Min.	Typ.	Max.
Insertion Loss (dB)	5150 to 5925	-	0.63	0.85
Insertion Loss (dB) ( -40 to +90 °C )	5150 to 5925	-	-	1.00
Return Loss (dB)	5150 to 5925	12	17	-
Attenuation (dB)	100 to 960	33	38	-
	1166 to 1249	33	36	-
	1427 to 1610	33	36	-
	1695 to 2200	33	37	-
	2300 to 2370	33	42	-
	2400 to 2484	33	43	-
	2496 to 2690	33	46	-
	3400 to 3800	33	41	-
	7250 to 7800	30	33	-
	10300 to 11850	25	28	-
	15450 to 17775	25	30	-
Characteristic Impedance (ohm)		50 (Nominal)		

Ta = +25+/-5°C

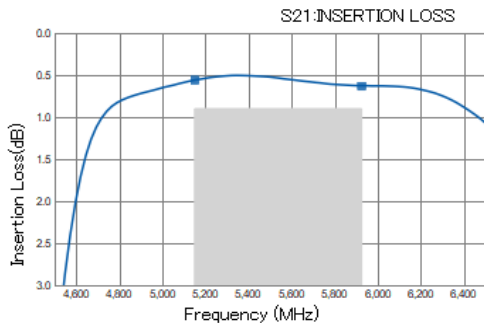
### ■ MAXIMUM RATINGS

Parameter	TDK Spec		Conditions
	Min.	Max.	
Operating temperature (°C)	-40 to +90 °C		
Storage temperature (°C)	-40 to +90 °C		
Power Handling (dBm)	-	31	CW
Human Body Model : HBM @Each Port (V)	-1000	1000	100pF / 1500ohm
Machine Model : MM @Each Port (V)	-150	150	200pF / 0ohm
Charged Device Model : CDM @Each Port (V)	-500	500	Relative humidity : 51%RH max

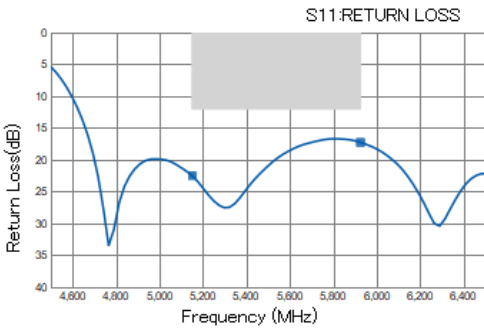
Ambient temperature : +25+/-5°C

# DEA165538BT-2263A1-H

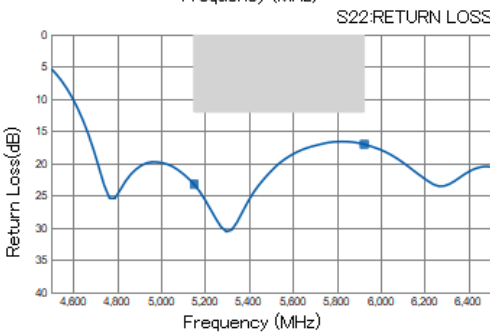
## FREQUENCY CHARACTERISTICS



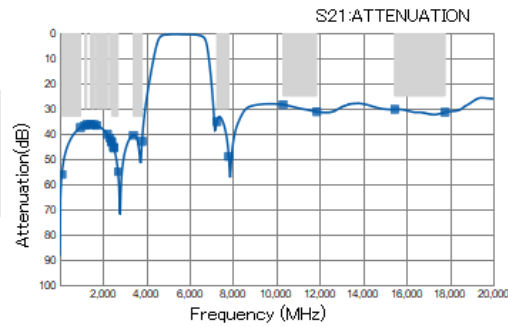
P/N	DEA165538BT-
Freq	2263A1-H
5150	0.56
5925	0.63



P/N	DEA165538BT-
Freq	2263A1-H
5150	22.47
5925	17.25



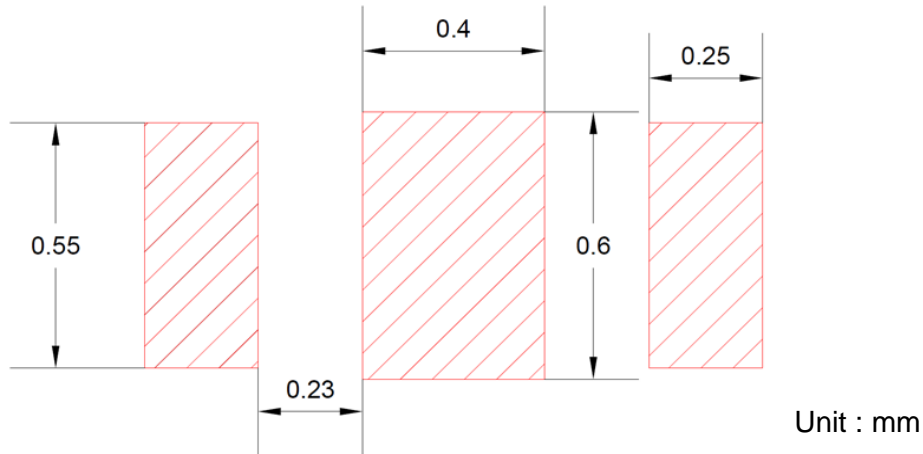
P/N	DEA165538BT-
Freq	2263A1-H
5150	23.19
5925	17.01



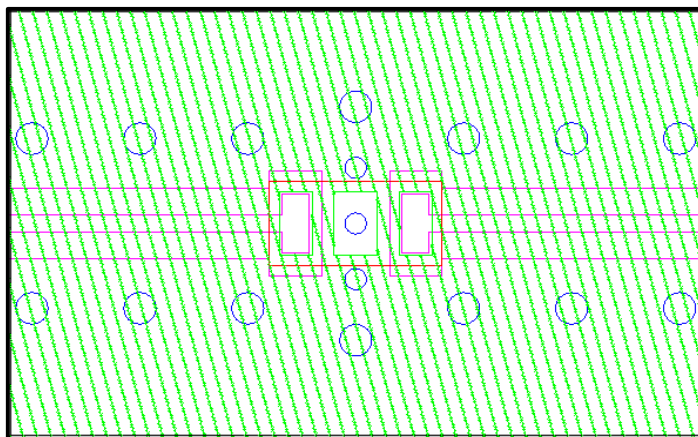
P/N	DEA165538BT-
Freq	2263A1-H
100	56.11
960	37.50
1166	36.60
1249	36.37
1427	36.20
1610	36.40
1695	36.62
2200	40.19
2300	41.56
2370	42.77
2400	43.33
2484	45.32
2496	45.62
2690	54.37
3400	40.58
3800	42.39
7250	35.19
7800	48.93
10300	28.41
11850	31.24
15450	30.27
17775	31.42

## DEA165538BT-2263A1-H

### RECOMMENDED LAND PATTERN



### EVALUATION BOARD



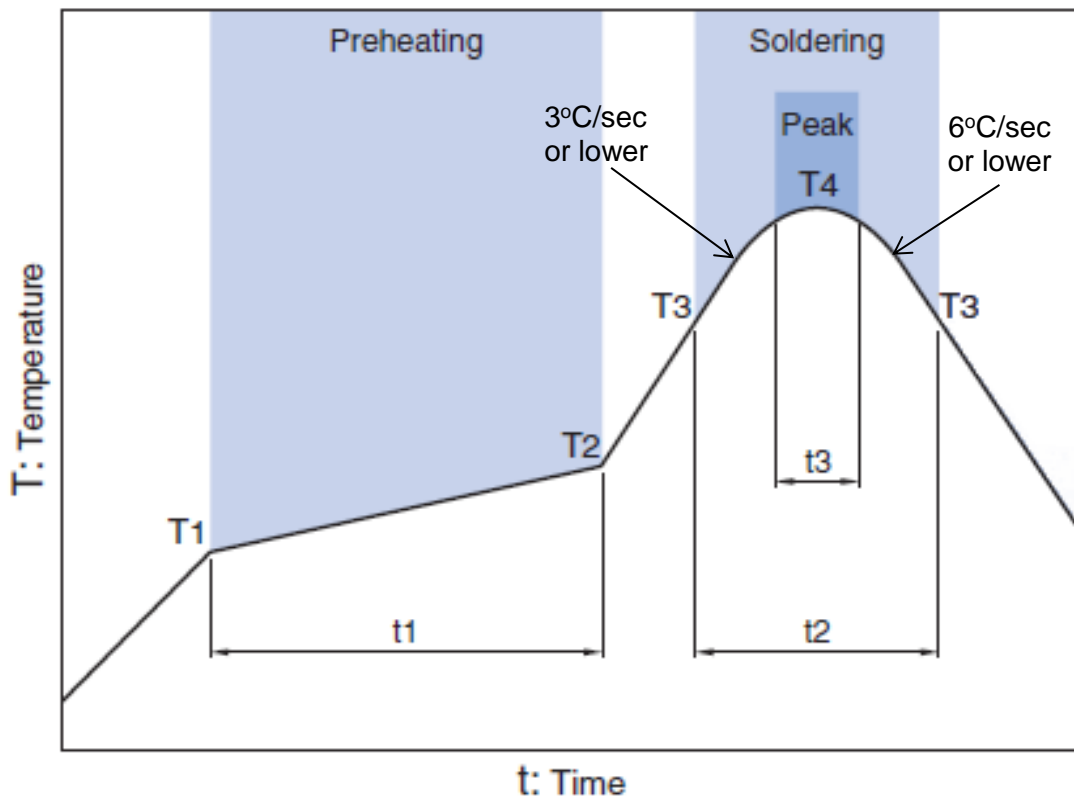
- Thru hole
- Resist
- Surface Pattern
- DUT (BPF)

Material, Layer	Thickness
Top Resist	Resist
Copper Surface Pattern	0.035mm
FR-4	0.10mm
Copper Inner GND	0.018mm
FR-4	0.30mm
Copper Bottom GND	0.035mm

\* Line width should be designed to match 50 ohm characteristic impedance depending on PCB material and thickness.

### ENVIRONMENT INFORMATION

RoHS Statement  
 RoHS Compliance

**DEA165538BT-2263A1-H****RECOMMENDED REFLOW PROFILE**

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

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

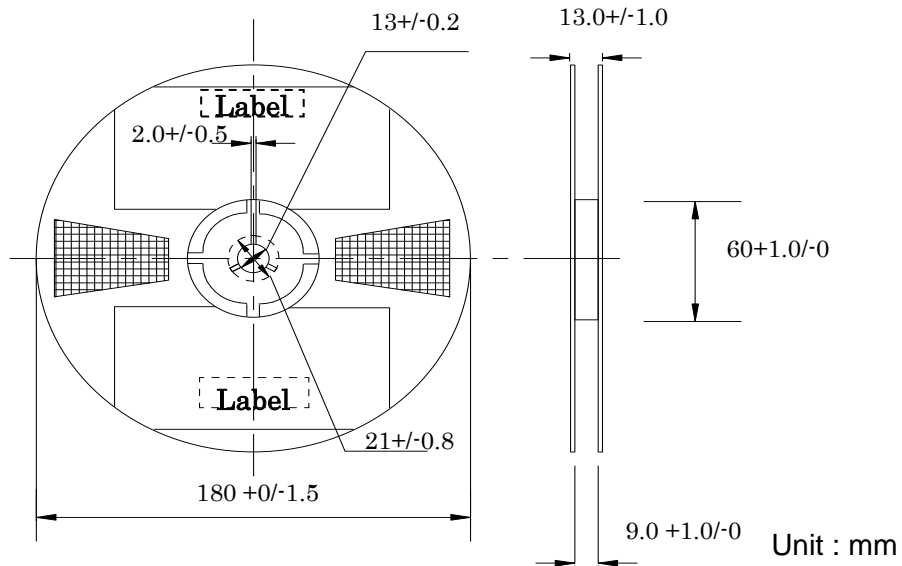
The maximum number of reflow is 3.

Note: Lead free solder is recommended.  
Recommended solder is Sn-3.0Ag-0.5Cu. (M705 by Senju Metal Industry)

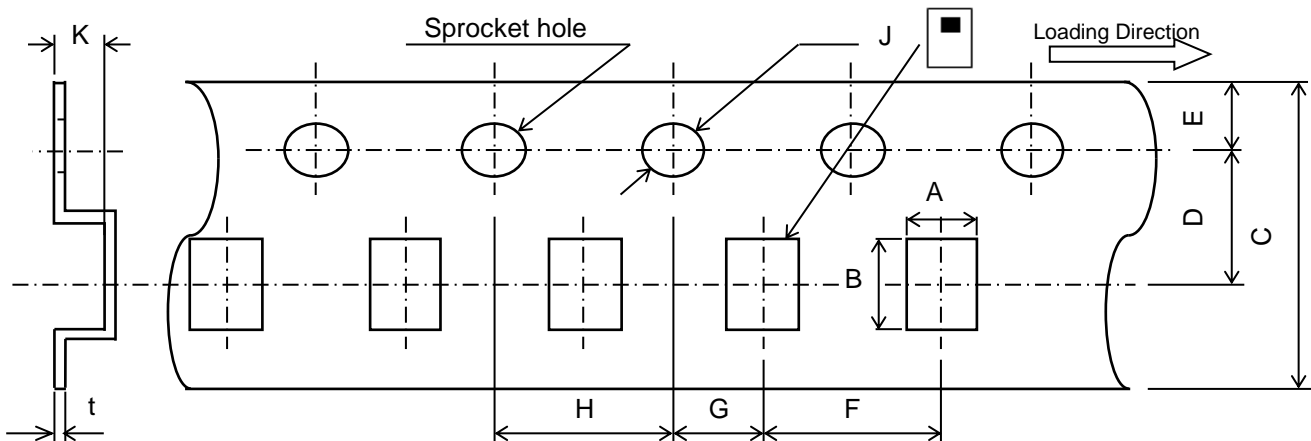
# DEA165538BT-2263A1-H

## PACKAGING STYLE

Reel Dimensions



Carrier Tape



Dimensions (mm)

A	B	C	D	E	F	G	H	J	K	t
0.97	1.8	8.0	3.5	1.75	4.0	2.0	4.0	1.5	0.8	0.25
+/-0.05	+/-0.05	+/-0.2	+/-0.05	+/-0.1	+/-0.1	+/-0.05	+/-0.1	+0.1/-0	MAX	+/-0.05

STANDARD PACKAGE QUANTITY ( pieces/reel )
4,000

## 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 specification sheet 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 specification sheet.

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.