



Oct. 2020 Ver.1.4
TDK Corporation

Multilayer Band Pass Filter

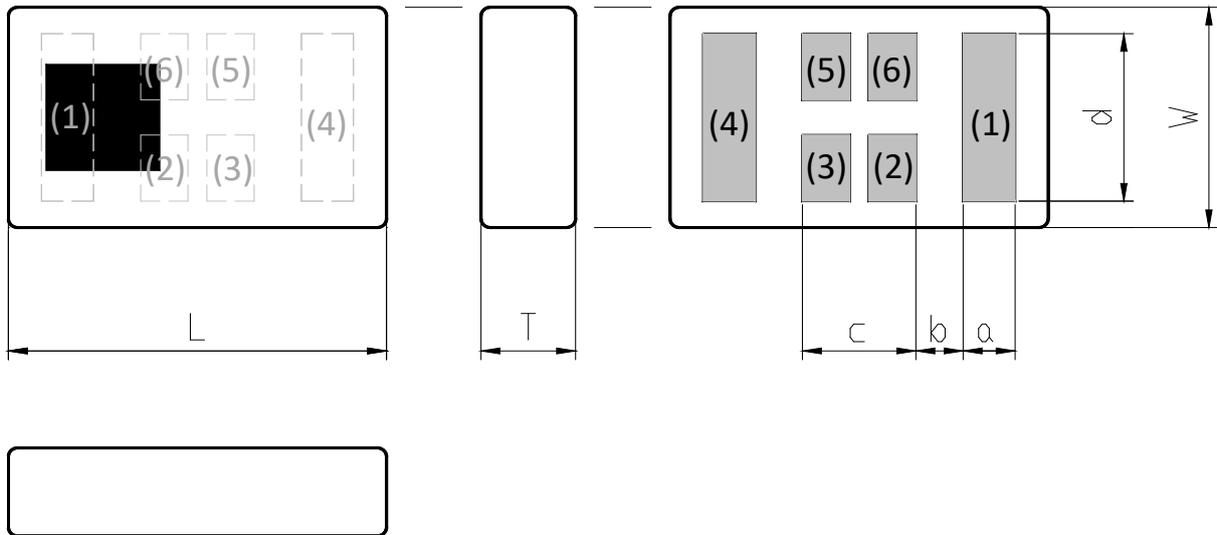
For 5G-H

DEA Series 2.0x1.25mm [EIA 0805] TYPE

P/N: **DEA204700BT-2307A1**

DEA204700BT-2307A1

■ SHAPES AND DIMENSIONS



Dimensions (mm)

L	W	T	a	b	c	d
2.00	1.25	0.65	0.275	0.25	0.60	0.95
+/-0.15	+/-0.10	Max	+/-0.10	+/-0.10	+/-0.10	+/-0.15

Terminal functions

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

(4)	Output Port
(5)	GND
(6)	GND

■ TERMINATION FINISH

Material
Ag

DEA204700BT-2307A1**ELECTRICAL CHARACTERISTICS**

(Measurement)

Parameter	Frequency (MHz)	TDK Spec.		
		Min.	Typ.	Max.
Insertion Loss (dB)	4400 to 5000	-	0.64	0.85
Insertion Loss (dB) (-40 to +90 °C)	4400 to 5000 to	-	-	1.08
Return Loss (dB) (Input / Output Port)	4400 to 5000 to	10	21.0	-
Attenuation (dB)	500 to 1606	20	22.6	-
	1606 to 2400	23	27.2	-
	2400 to 2500	23	37.2	-
	2500 to 2690	21	27.0	-
	2700 to 3150	5	24.5	-
	3300 to 3800	13	17.0	-
	3800 to 4200	0.7	1.5	-
	8800 to 10000	15	23.4	-
	13200 to 15000	15	18.0	-
Characteristic Impedance (ohm)		50 (Nominal)		

Ta = +25+/-5°C

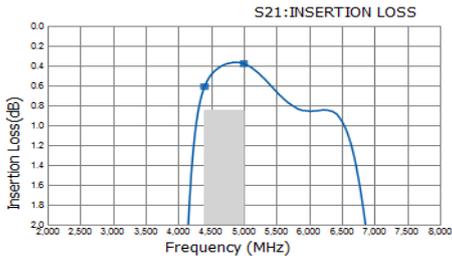
MAXIMUM RATINGS

Parameter	TDK Spec		Conditions
	Min.	Max.	
Operating temperature (°C)	-40 to +90 °C		
Storage temperature (°C)	-40 to +90 °C		
Power Handling (W)	-	2	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 : 60%RH max

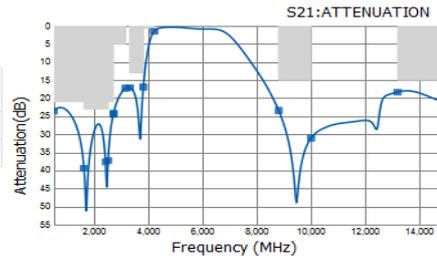
*1 : Refer to 3GPP TS 38.101-1 V15.2.0

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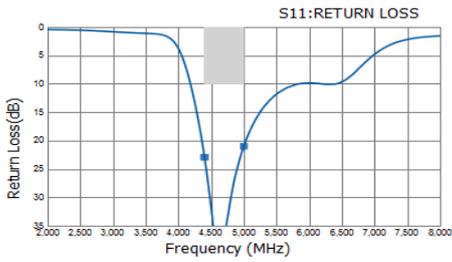
FREQUENCY CHARACTERISTICS



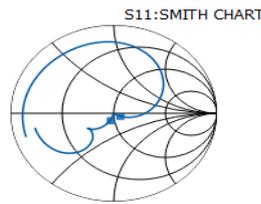
P/N	DEA204700BT-2307A1_ver1.0N_Feb282018
4400	0.61
5000	0.38



P/N	DEA204700BT-2307A1_ver1.0N_Feb282018
500	23.56
1606	39.35
2400	37.59
2500	37.21
2690	24.48
2700	24.15
3150	17.25
3300	17.04
3800	16.95
4200	1.47
8800	23.42
10000	31.07
13200	18.29
15000	21.21



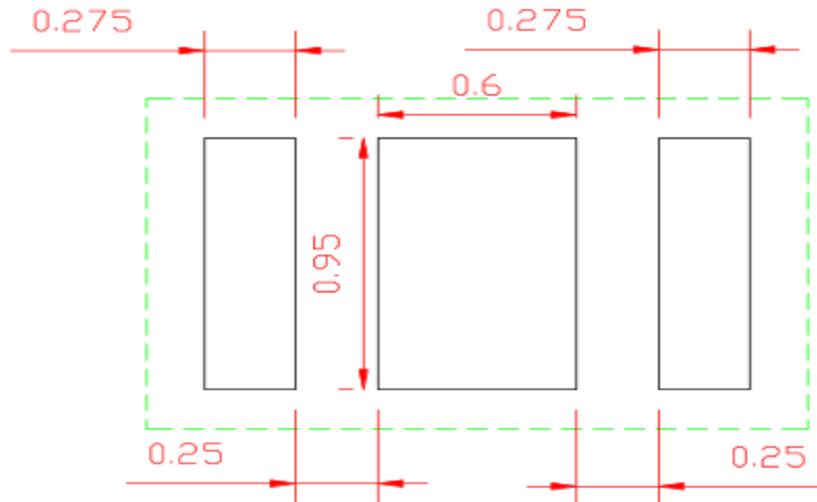
P/N	DEA204700BT-2307A1_ver1.0N_Feb282018
4400	22.93
5000	21.00



P/N	DEA204700BT-2307A1_ver1.0N_Feb282018
4400	0.06 / -0.03
5000	-0.04 / -0.08

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RECOMMENDED LAND PATTERN



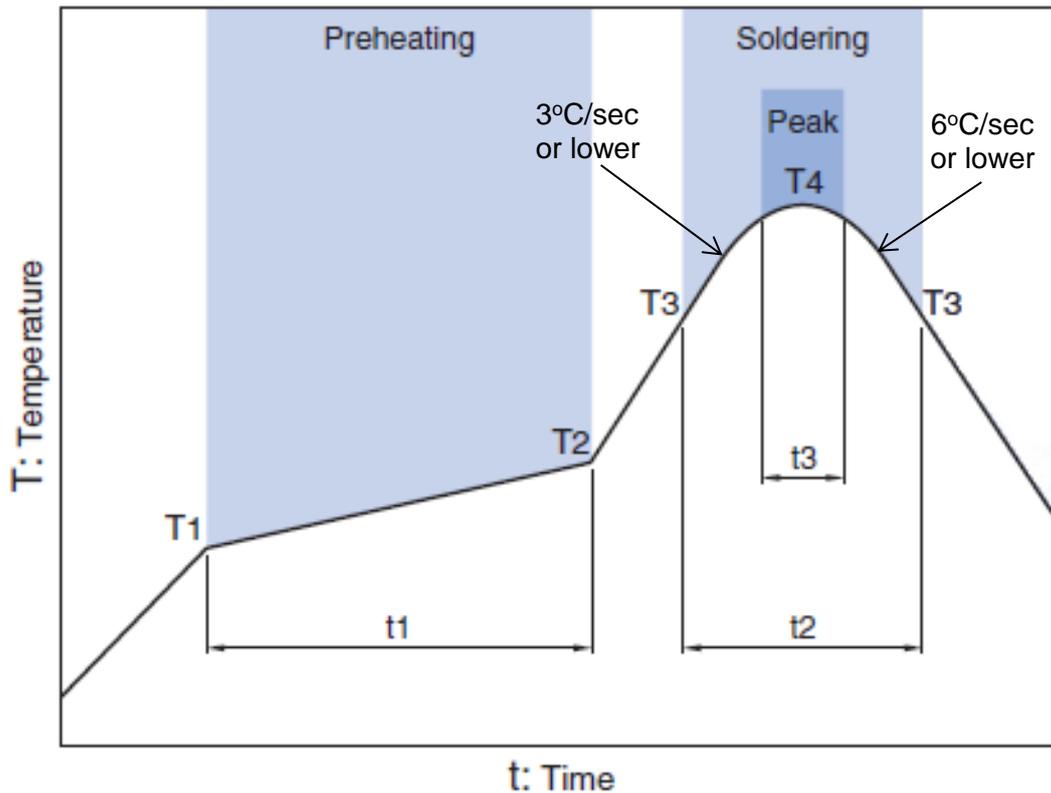
Unit[mm]

ENVIRONMENT INFORMATION

RoHS Statement
RoHS Compliance

DEA204700BT-2307A1

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

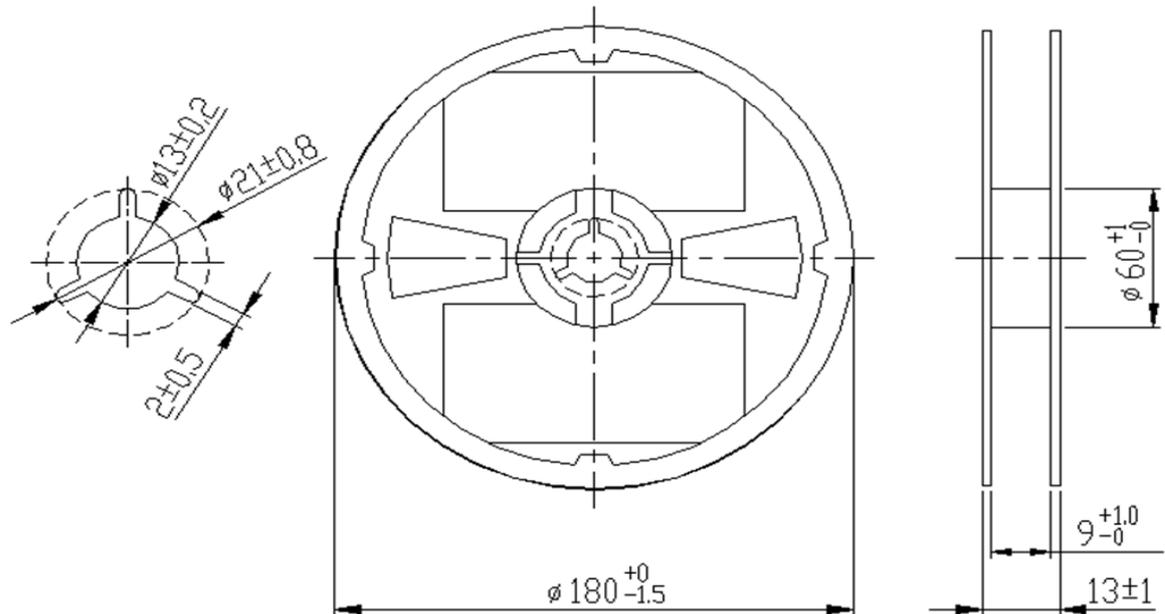
* t3 : Time within 5°C of actual peak temperature

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)

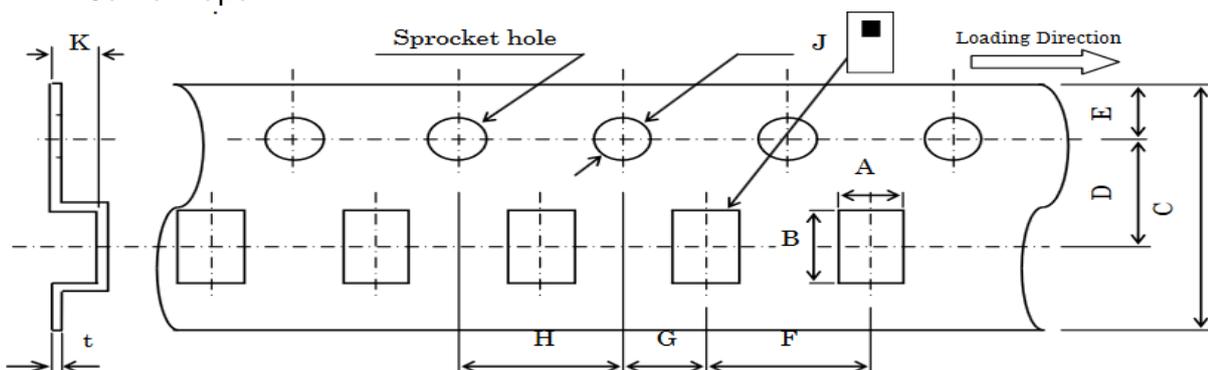
DEA204700BT-2307A1**PACKAGING STYLE**

Reel Dimensions



Dimensions in mm

Carrier Tape



Dimensions (mm)

A	B	C	D	E	F	G	H	J	K	t
1.45	2.2	8.0	3.5	1.75	4.0	2.0	4.0	1.5	0.8	0.25
± 0.05	± 0.05	$+0.3/-0.1$	± 0.05	± 0.1	± 0.1	± 0.05	± 0.1	$+0.1/-0$	Max.	± 0.05

STANDARD PACKAGE QUANTITY
(pieces/reel)

2,000

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.