



Jan. 2022 Ver.2.0
TDK Corporation

Multilayer Band Pass Filter

For 1880-2025MHz

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

P/N: **DEA161953BT-2303B1-H**

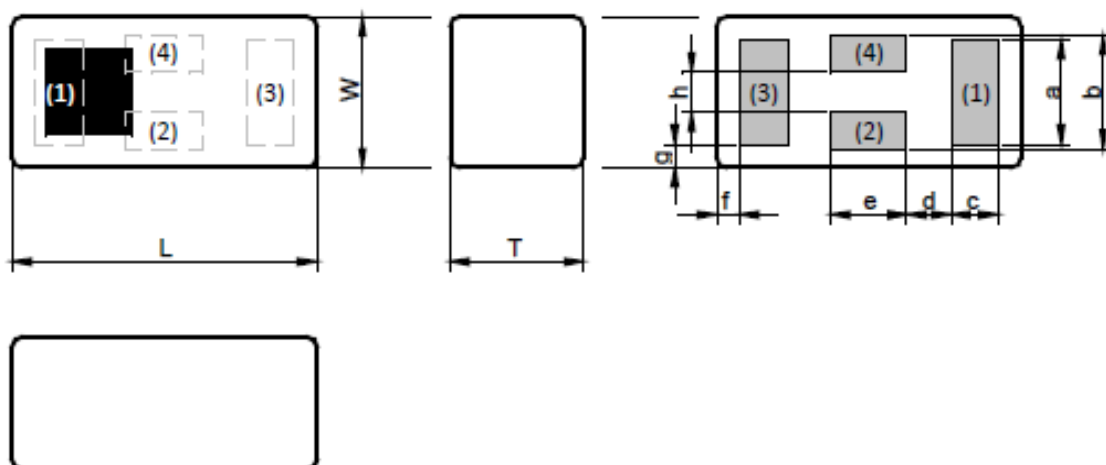
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■ SHAPES AND DIMENSIONS

[Top View]

[Bottom View]



Dimensions (mm)

L	W	T	a	b	c	d	e	f	g	h
1.60	0.80	0.80	0.55	0.60	0.25	0.23	0.40	0.12	0.125	0.21
+/-0.10	+/-0.10	Max	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10	+/-0.10

Terminal functions

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

DC Cut

No. There is NOT a DC Cut between the IN & OUT & GND.

■ TERMINATION FINISH

Material
Ag

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ELECTRICAL CHARACTERISTICS

(Measurement)

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	1805 to 1880	-	2.10	-
	1880 to 2025	-	1.34	1.80
Insertion Loss (dB) (-40 to +85 °C)	1880 to 2025	-	-	2.20
VSWR (Input Port)	1880 to 2025	-	1.37	2.0
(Output Port)	1880 to 2025	-	1.36	2.0
Attenuation (dB)	1545 to 1610	20	25.4	-
	2400 to 2500	18	31.5	-
	5150 to 5850	25	40.4	-
Characteristic Impedance (ohm)		50 (Nominal)		

Ta = +25+/-5°C

MAXIMUM RATINGS

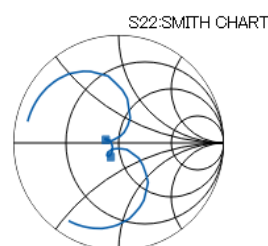
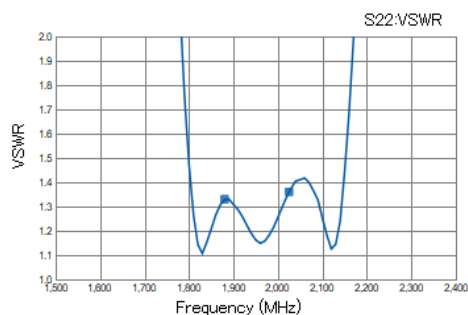
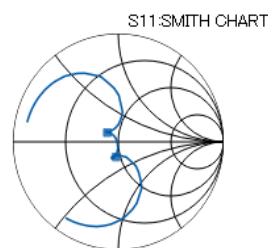
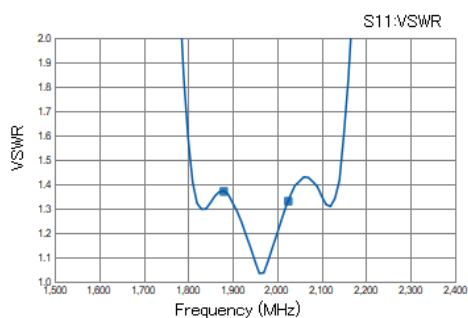
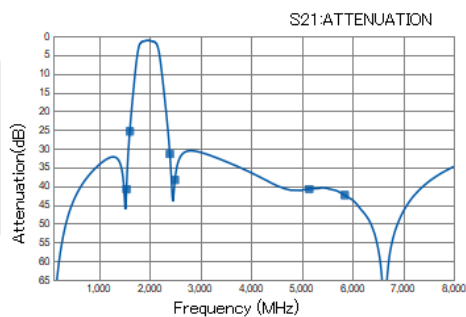
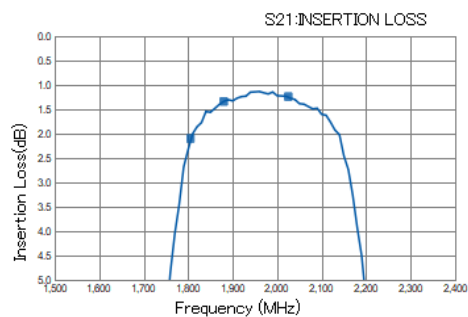
Parameter		TDK Spec	Conditions
Operating temperature (°C)		-40 to +85 °C	
Storage temperature (°C)		-40 to +85 °C	
Power Handling (W) *1	Frequency (MHz)		
	1805 to 2025	1	CW
Human Body Model : HBM	@Each Port (V)	+/-1000	100pF / 1500ohm
Machine Model : MM	@Each Port (V)	+/-150	200pF / 0ohm
Charged Device Model : CDM	@Each Port (V)	+/-500	Humidity : 60%RH max

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

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FREQUENCY CHARACTERISTICS



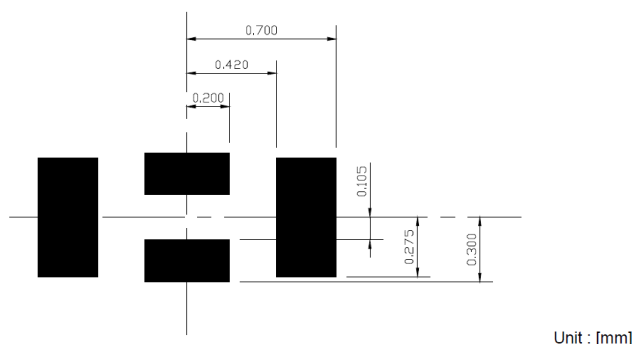
All specifications are subject to change without notice.

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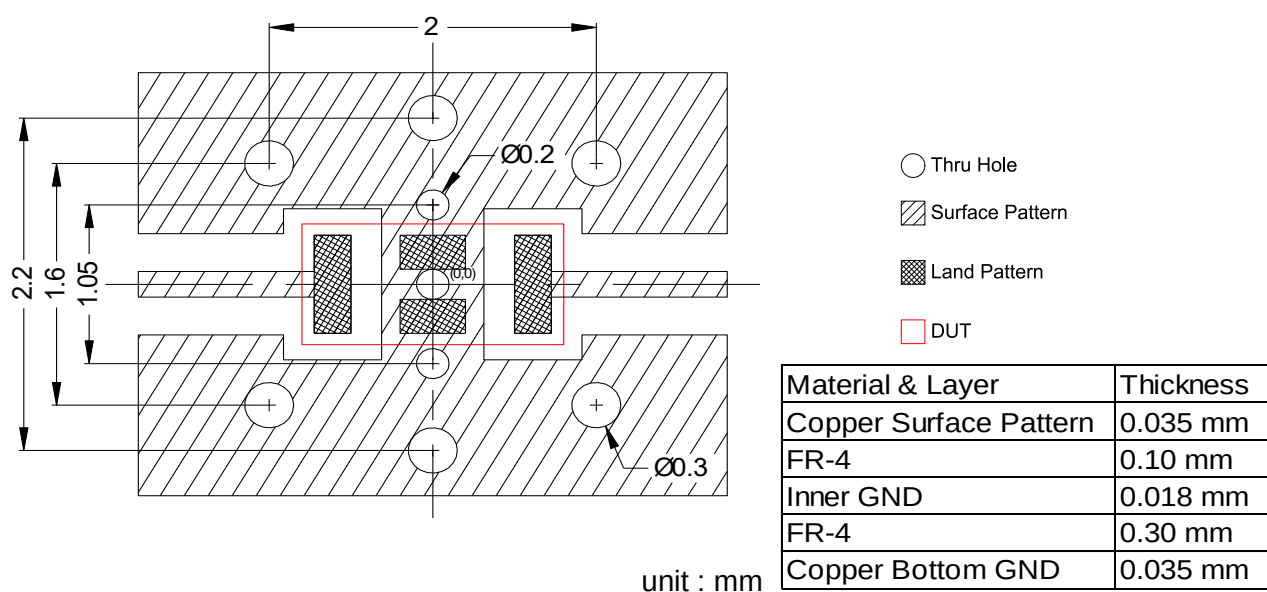
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RECOMMENDED LAND PATTERN



EVALUATION BOARD



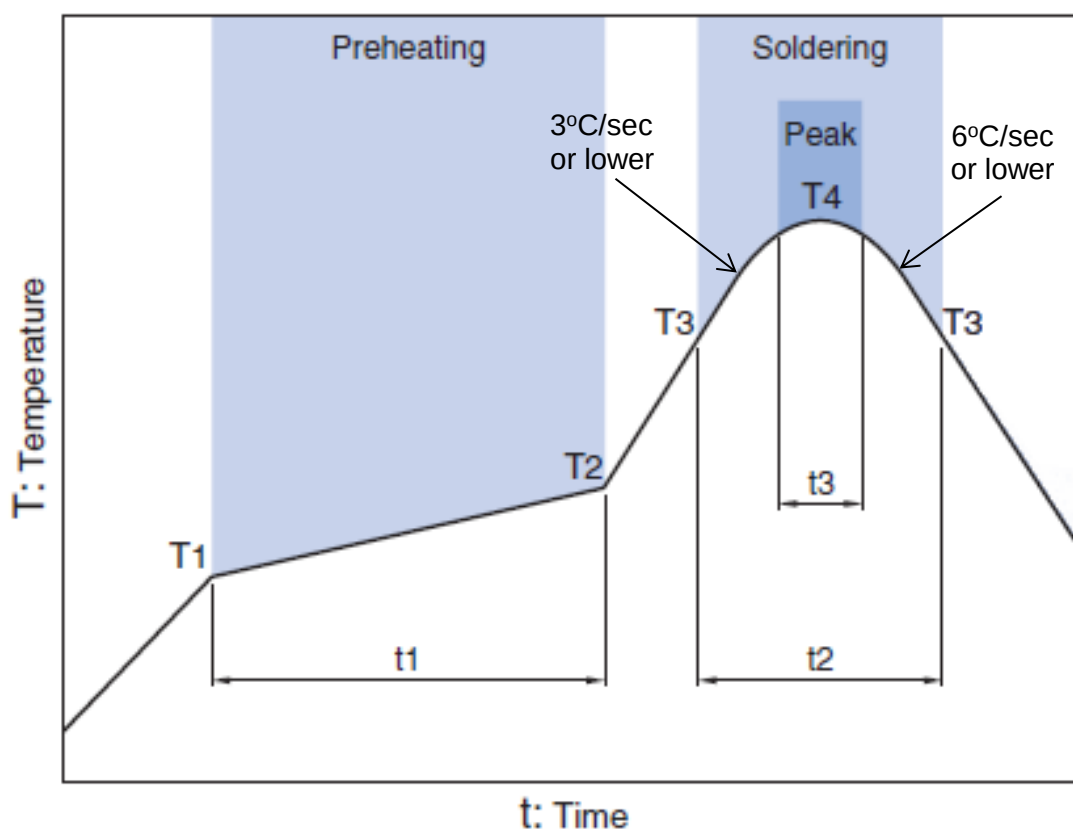
* Line width should be designed to match 50 ohm characteristic impedance depending on PCB material and thickness.

** The position of the through hole which have possibility of influence to the preformance are indicated by dimension line.

■ ENVIRONMENT INFORMATION

RoHS Statement
RoHS Compliance

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DEA161953BT-2303B1-H**RECOMMENDED REFLOW PROFILE**

Preheating			Soldering			
			Critical zone (T3 to T4)		Peak	
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.

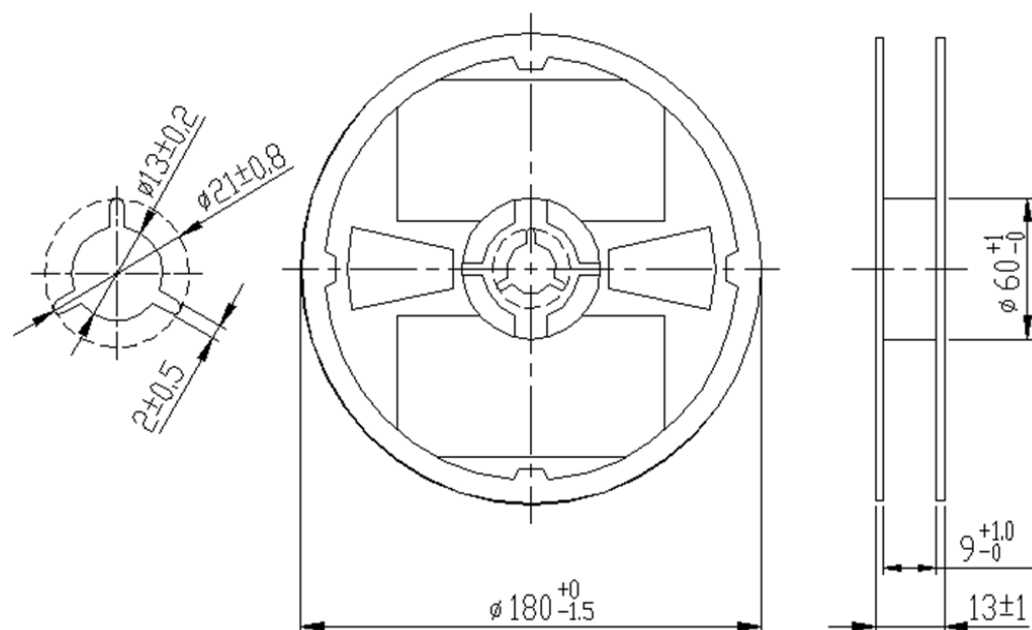
Note: Lead free solder is recommended.
Recommended solder is Sn-3.0Ag-0.5Cu. (M705 by Senju Metal Industry)

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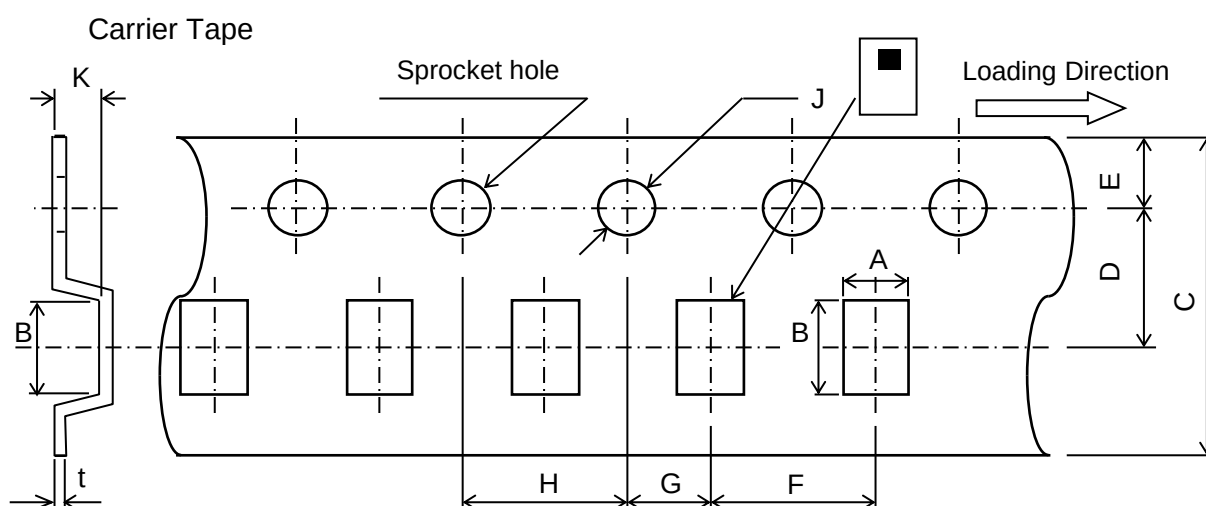
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■ PACKAGING STYLE

Reel Dimensions



Dimensions in mm



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	1.0	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)

4,000

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