



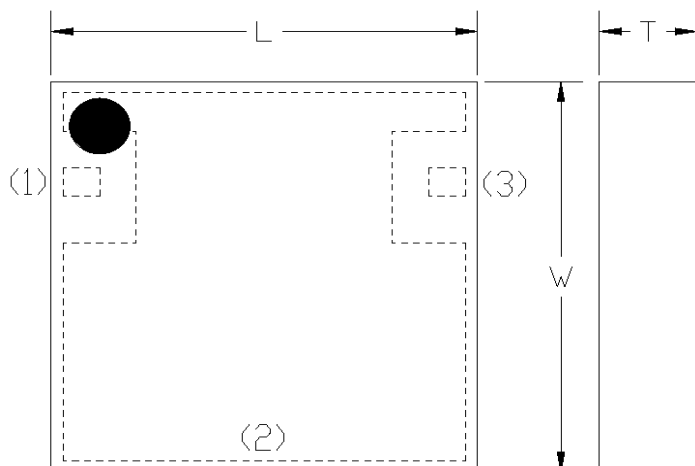
## Multilayer Band Pass Filter

MMC Series 3.5 × 3.5 mm TYPE

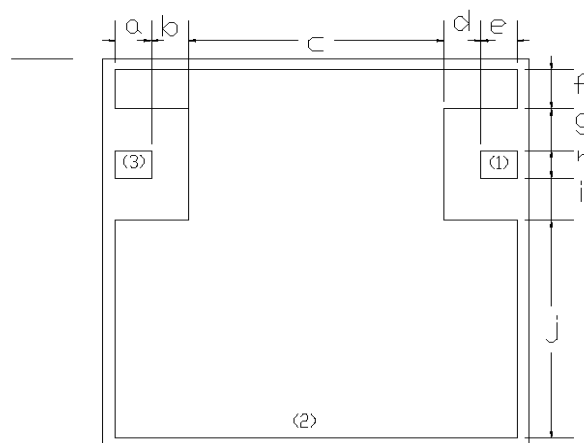
P/N: **MMCB3528G0T-0041A1**

**PRELIMINARY**Sep. 2020 Ver.3.0N  
TDK Corporation**MMCB3528G0T-0041A1****■ SHAPES AND DIMENSIONS**

[Top View]



[Bottom View]



Dimensions (mm)

L	W	T	a	b	c	d	e	f	g	h	i	j
3.50	3.50	0.80	0.30	0.30	2.10	0.30	0.30	0.35	0.375	0.25	0.375	1.95
+/-0.15	+/-0.15	+/-0.10	+0.1/-0.05	+0.1/-0.05	+/-0.15	+0.1/-0.05	+0.1/-0.05	+0.1/-0.05	+0.1/-0.05	+0.1/-0.05	+0.1/-0.05	+/-0.15

Terminal functions

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

**PRELIMINARY**Sep. 2020 Ver.3.0N  
TDK Corporation**MMCB3528G0T-0041A1****ELECTRICAL CHARACTERISTICS**

( Measurement )

Parameter	Frequency (GHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	26.5 to 29.5	-	1.21	2.00
	26 to 30	-	1.74	3.00
Insertion Loss (dB) ( -40 to +105 °C )	26.5 to 29.5	-		2.40
	26 to 30	-		4.10
VSWR	26 to 30	-	1.50	1.92
VSWR ( -40 to +105 °C )	26 to 30	-		1.92
Attenuation (dB)	0.05 to 6	30	78.9	-
	17.1 to 20.1	30	67.4	-
	21.8 to 24.3	50	54.6	-
	24.3 to 24.8	35	47.0	-
	33 to 37	27	32.3	-
Attenuation (dB) ( -40 to +105 °C )	0.05 to 6	30		-
	17.1 to 20.1	30		-
	21.8 to 24.3	50		-
	24.3 to 24.8	20		-
	33 to 37	25		-
Amplitude ripple (dB)	26.5 to 29.5	-	0.23	1
	26 to 30	-	0.76	2
Group delay ripple(ps)	26.5 to 29.5	-	119	250
	26 to 30	-	301	700
Group delay ripple(ps) ( -40 to +105 °C )	26.5 to 29.5	-		290
	26 to 30	-		880
Group delay ripple variation(ps) from +105 to -40 °C	26.5 to 29.5	-		90
	26 to 30	-		380
Group delay ripple variation(ps) from +105 to +25 °C	26.5 to 29.5	-		50
	26 to 30	-		160
Group delay ripple variation(ps) from +25 to -40 °C	26.5 to 29.5	-		50
	26 to 30	-		240
Characteristic Impedance (ohm)		50 (Nominal)		

Ta = +25+/-5°C

**MAXIMUM RATINGS**

Parameter	TDK Spec	
	Min.	Max.
Operating temperature (°C)	-40 to +105 °C	
Storage temperature (°C)	-40 to +105 °C	
Power Handling (W)	-	1

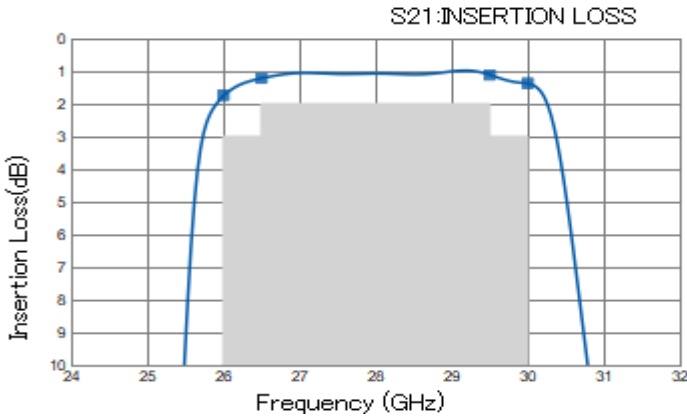
Ambient temperature : +25+/-5°C

**PRELIMINARY**

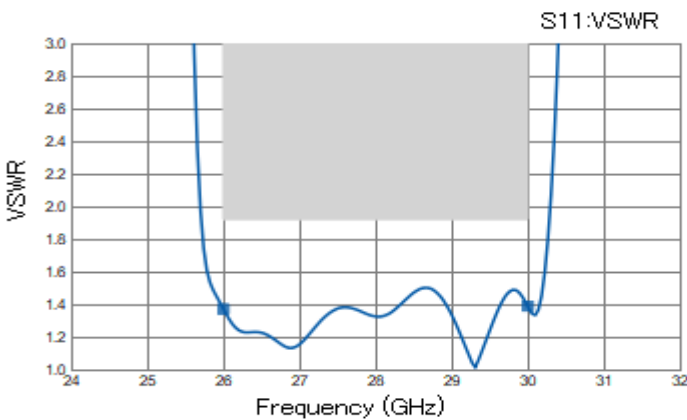
Sep. 2020 Ver.3.0N  
TDK Corporation

**MMCB3528G0T-0041A1**

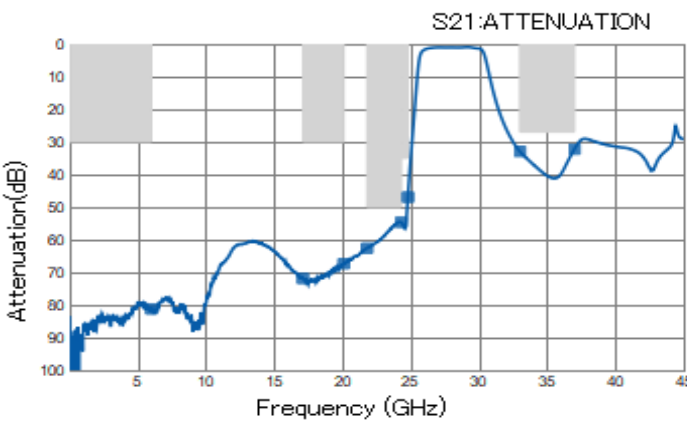
**FREQUENCY CHARACTERISTICS**



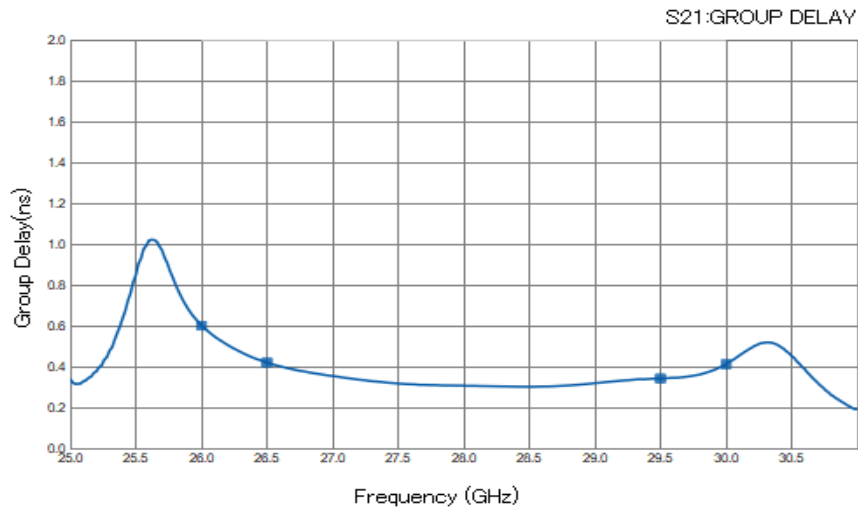
P/N	Ver.2.0N
Freq	
26.5-29.5	1.21
26-30	1.74
26	1.74
26.5	1.21
29.5	1.11
30	1.37



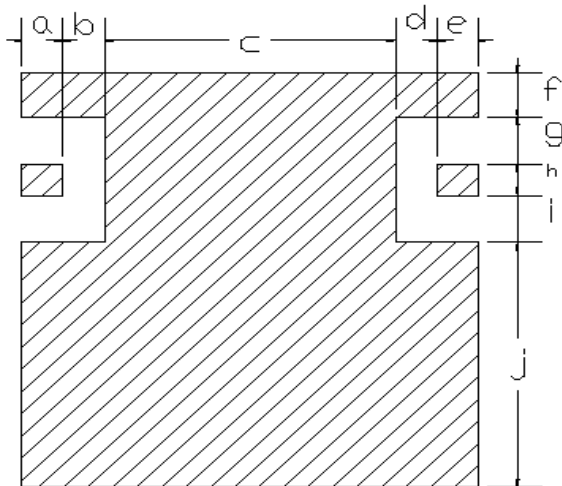
P/N	Ver.2.0N
Freq	
26-30	1.5
26	1.37
30	1.39



P/N	Ver.2.0N
Freq	
0.05-6	78.86
17.1-20.1	67.35
21.8-24.3	54.57
24.3-24.8	46.95
33-37	32.26
0.05	89.83
6	81.25
17.1	71.89
20.1	67.35
21.8	62.63
24.3	54.67
24.8	46.95
33	32.92
37	32.26

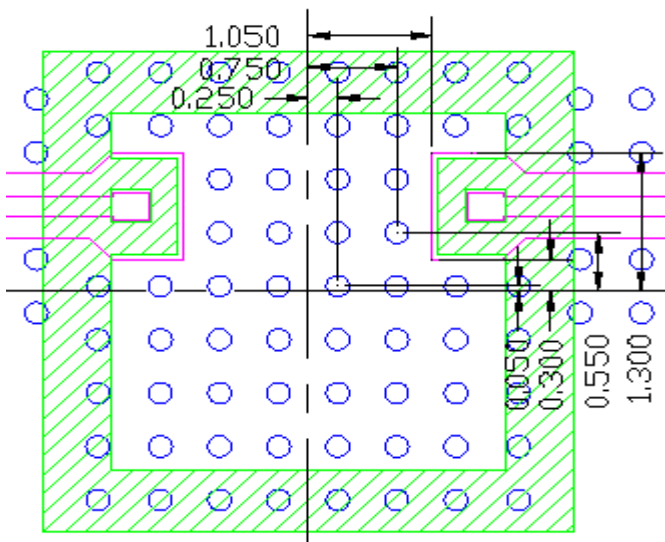

**PRELIMINARY**Sep. 2020 Ver.3.0N  
TDK Corporation**MMCB3528G0T-0041A1**■ **FREQUENCY CHARACTERISTICS**

P/N	Ver.2.0N
Freq	
26.5-29.5	0.119 max:0.419 min:0.3
26-30	0.301 max:0.601 min:0.3
26	0.601
26.5	0.419
29.5	0.341
30	0.411

**PRELIMINARY**Sep. 2020 Ver.3.0N  
TDK Corporation**MMCB3528G0T-0041A1****RECOMMENDED LAND PATTERN**

Unit:mm

a	b	c	d	e	f	g	h	i	j
0.30	0.30	2.10	0.30	0.30	0.35	0.375	0.25	0.375	1.95
+0.1/-0.05	+0.1/-0.05	+/-0.15	+0.1/-0.05	+0.1/-0.05	+0.1/-0.05	+0.1/-0.05	+0.1/-0.05	+0.1/-0.05	+/-0.15

**EVALUATION BOARD**
 Thru Hole( $\phi$  0.2mm)

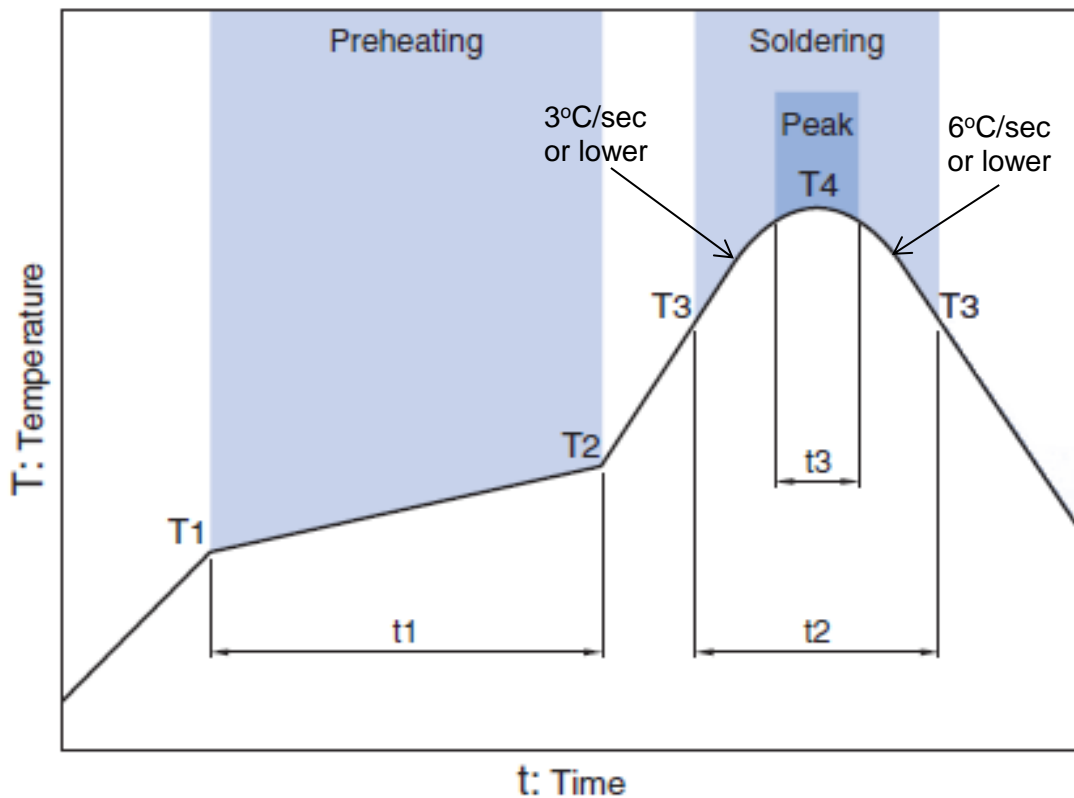
 Resist

Material & Layer	Thickness
Top Resist	-
Copper Surface Pattern	0.035 mm
Megtron7(R-5785(N))	0.089 mm
Copper inner GND	0.035 mm
Megtron7(R-5680(N))	0.3 mm
Megtron7(R-5785(N))	
Copper Bottom GND	0.035 mm

Please make sure to place Thru hole to connect under layer GND at your PCB similar with TDK EVB drawing. If you have any concern about your PCB design, please do not hesitate to contact TDK.

**ENVIROMENT INFORMATION**

RoHS Statement  
RoHS Compliance

**PRELIMINARY**Sep. 2020 Ver.3.0N  
TDK Corporation**MMCB3528G0T-0041A1****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)

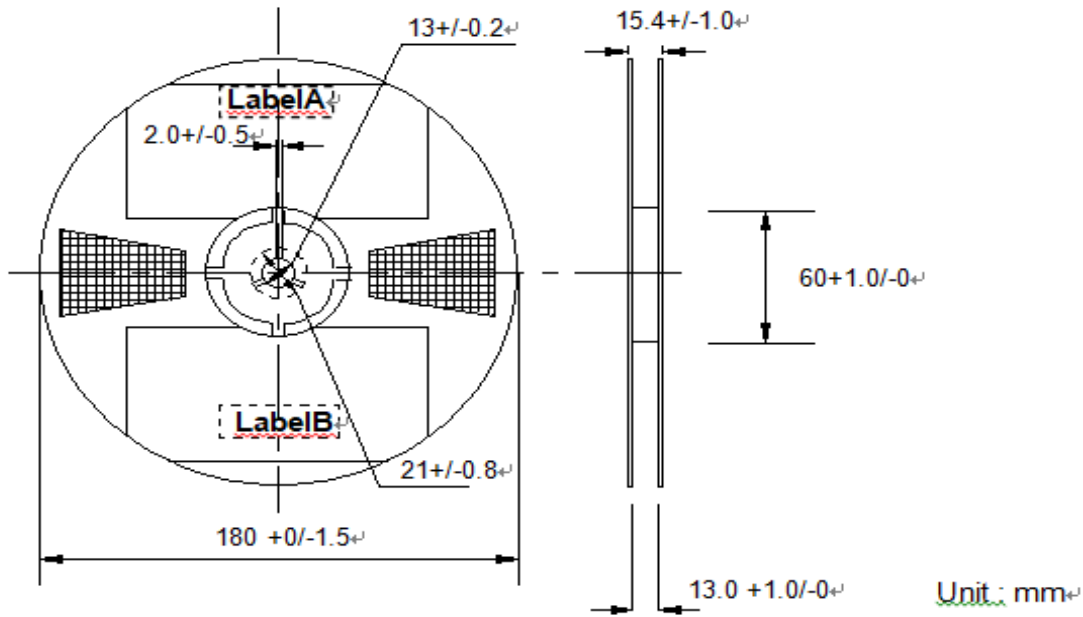
**PRELIMINARY**

Sep. 2020 Ver.3.0N  
TDK Corporation

# MMCB3528G0T-0041A1

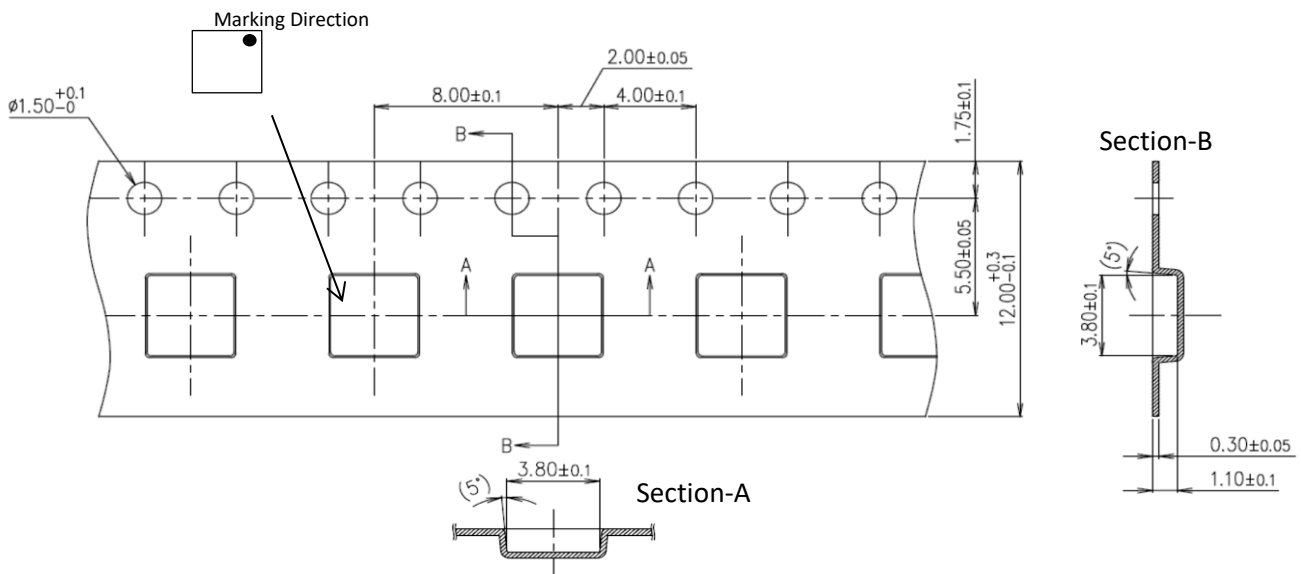
## PACKAGING STYLE

Reel Dimensions



Taping Dimensions

Dimension in mm



<b>STANDARD PACKAGE QUANTITY</b> <b>( pieces/reel )</b>
1,500



## 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.