

Sep. 2020 Ver.1.1N TDK Corporation

Multilayer Band Pass Filter

MMC Series 3.5 × 3.5 mm

**TYPE** 

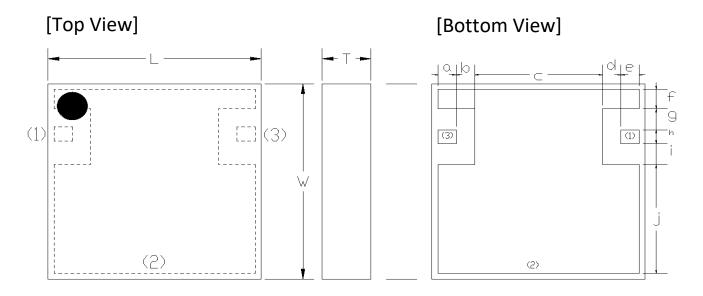
P/N: MMCB3525G8T-0044A1



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# SHAPES AND DIMENSIONS



Dimensions (mm)

Zimenerene (mm)												
L	W	T	а	b	C	d	е	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			



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## ELECTRICAL CHARACTERISTICS

(Measurement)

Parameter	Frequency (GHz)			TDK Spec			
Farameter	Freque	r requericy (Griz)			Тур.	Max.	
Insertion Loss (dB)	24.25	to	27.5	-	1.51	2.50	
Insertion Loss (dB)	24.25	to	27.5	-		3.00	
(–40 to +105 °C )							
VSWR	24.25	to	27.5	-	1.66	1.92	
VSWR	24.25	to	27.5	-		2.00	
(–40 to +105 °C )							
Attenuation (dB)	0.1	to	6	35	71.2	-	
(–40 to +105 °C )	6	to	20	35	63.1		
	30	to	31	30	58.1		
	31	to	37	35	45.0	-	
	37	to	41	30	36.2	-	
Characteristic Impedance (ohm)				50	(Nomir	nal)	

 $Ta = +25 + /-5 ^{\circ}C$ 

## MAXIMUM RATINGS

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

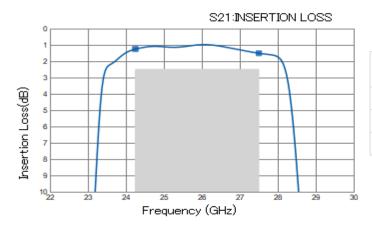
Ambient temperature: +25+/-5°C



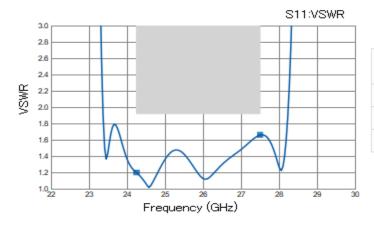
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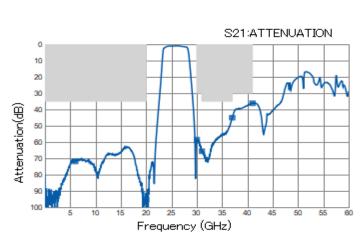
# FREQUENCY CHARACTERISTICS



P/N Freq	Ver_1_0_N
24.25-27.5	1.51
24.25	1.25
27.5	1.51



P/N Freq	Ver_1_0_N
24.25-27.5	1.66
24.25	1.20
27.5	1.66



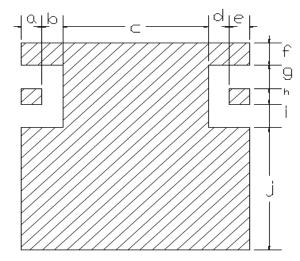
P/N Freq	Ver.1_0JN		
0.1-6	71.15		
6-20	63.08		
30-31	58.11		
31-37	45.02		
37-41	36.17		
0.1	98.11		
6	71.82		
20	95.40		
30	58.65		
31	65.56		
37	45.02		
41	36.17		



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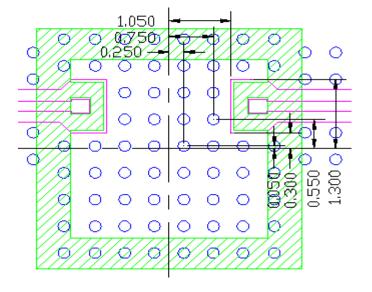
# RECOMMENDED LAND PATTERN



Unit:mm

а	b	С	d	е	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







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))	0.3 11111	
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.

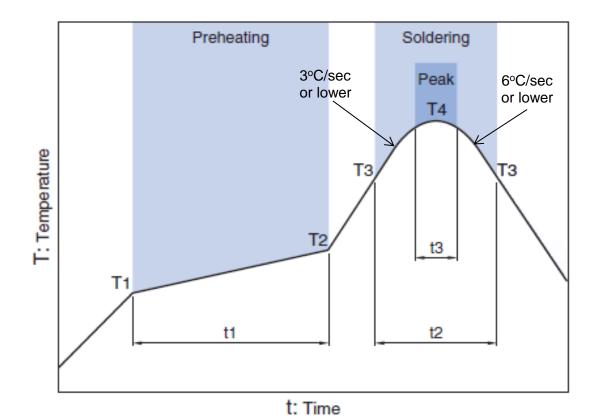
## ■ ENVIROMENT INFORMATION

RoHS Statement RoHS Compliance

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## MMCB3525G8T-0044A1

## RECOMMENDED REFLOW PROFILE



	Drobe	eating	Soldering					
	FIEII	auriy	Critical zon	e (T3 to T4)	Peak			
Ter	mp.	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)

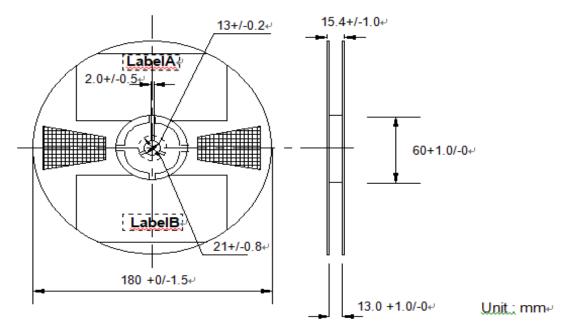


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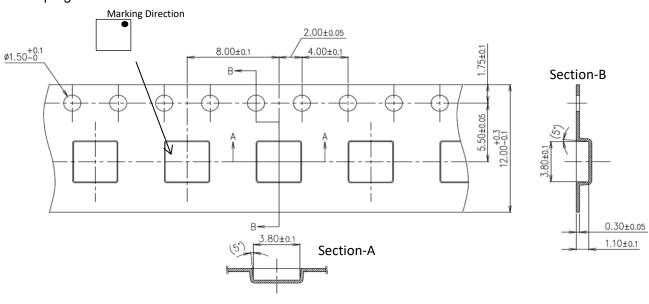
## PACKAGING STYLE

**Reel Dimensions** 



#### **Taping Dimensions**

Dimension in mm



STANDARD PACKAGE QUANTITY ( pieces/reel ) 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.

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