

RE

Sim3

☐ Low Pass Type
☐ Band Pass Type

※ #JZT / #L4T : 3.5GHz Att.

b) @-40~+85degC

TAIYO YUDEN

Type	Size	PN	Terminal	Band	Specification				Thickness (mm) Max.	Status	Datasheet Version	Recommended Items	Ref. / Std
					Freq. (MHz)	I.L. (dB) Max [Typ.]	Freq. (MHz)	Att. (dB) Min [Typ.]					
Diplexer 2.4/Wi-Fi 6E,7	1608 (LGA)	TSD1N18D2G45LV0JZT	 Low	2.4GHz	2400~2500	b) 1.1 [0.69]	3300~3700	13 [21.8]	0.65	MP	PG20230126- O01	Qualified	Q
							3700~3800	22 [30.4]					
							3800~5925	25 [30.4]					
							5925~7125	10 [35.8]					
			High	Wi-Fi 6E,7	5150~7125	b) 1.65 [1.07]	617~2690	25 [29.8]					
							3300~4200	15 [27.6]					
Diplexer 2.4/Wi-Fi 6E,7	1608 (LGA)	TSD1N18D2G45LV0L4T (mirror of TSD1N18D2G45LV0JZT)	 Low (LPF)	2.4GHz	2400~2500	b) 1.1 [0.69]	3300~3700	13 [21.8]	0.65	MP	PG20230126- O02	Proposal	Std
							3700~3800	22 [30.4]					
							3800~5925	25 [30.4]					
							5925~7125	10 [35.8]					
			High (BPF)	Wi-Fi 6E,7	5150~7125	b) 1.65 [1.07]	617~2690	25 [29.8]					
							3300~4200	15 [27.6]					

1608mm(0603inch)Diplexer

RB

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MP

TSD1N18D2G45NV067T

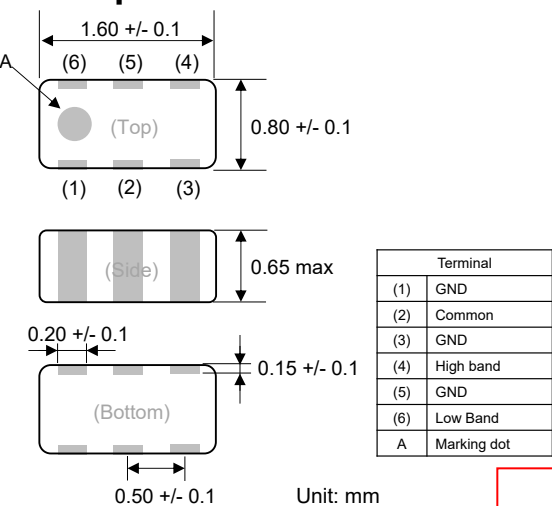
Electrical Characteristics

No.	TSD1N18D2G45NV067T		Specification			Unit	Remarks
			Min.	Typ.	Max.		
Low							(2)Com-(6)Low
1	Pass Band Frequency		2400	-	2482	MHz	
2	Insertion loss	2400-2482 MHz	-	0.26	0.40	dB	Ta= +25°C
			-	-	0.50	dB	Ta= -40 to +85°C
3	V.S.W.R.	2400-2482 MHz	-	1.17	1.43	-	
4	Attenuation	4800-5000 MHz	18	23.0	-	dB	Ta= -40 to +85°C
		5170-7125 MHz	23	28.8	-	dB	
		7200-7500 MHz	23	29.3	-	dB	
		9600-10000 MHz (*)	-	30.0	-	dB	
		12000-20000 MHz (*)	-	13.1	-	dB	
High							(2)Com-(4)High
1	Pass Band Frequency		5170	-	7125	MHz	
2	Insertion loss	5170-7125 MHz	-	1.21	1.50	dB	Ta= +25°C
			-	-	1.70	dB	Ta= -40 to +85°C
3	V.S.W.R.	5170-7125 MHz	-	1.28	1.67	-	
4	Attenuation	700-2690 MHz	25	29.1	-	dB	Ta= -40 to +85°C
		3400-3800 MHz	25	41.2	-	dB	
		3800-4200 MHz	20	28.8	-	dB	
		3840-4440 MHz	5	15.8	-	dB	
		10340-14250 MHz (*)	-	31.0	-	dB	
		15510-20000 MHz (*)	-	22.6	-	dB	
Isolation							
1	(6)Low to (4)High	700-2690 MHz	25	29.0	-	dB	Ta= -40 to +85°C
		3400-3800 MHz	25	40.3	-	dB	
		3800-4200 MHz	20	34.8	-	dB	
		5170-7125 MHz	23	29.6	-	dB	
Impedance							
1	Impedance		-	50	-	Ohm	All port
Power Handling at Pass Band							
1	Power Handling		-	-	+30	dBm	CW

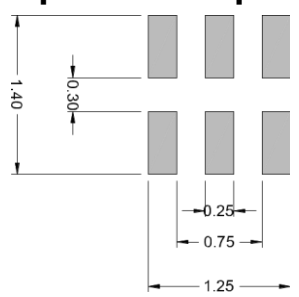
(*)Reference Operating Temp. -40 to +85 deg-C

Notice : All the technical data and specifications are subject to change without prior notice. This product is only intended for use in general communications applications and not intended for applications such as automotive embedded systems where higher safety and reliability are required. Before making final selection, please check product specification.

Shapes & Dimensions

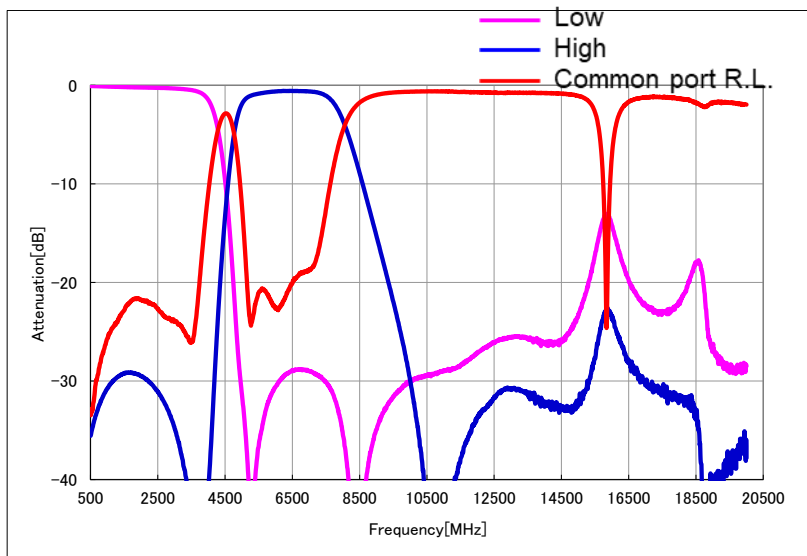


Example of land pattern



- (1) Metal mask thickness ; 0.08mm
- (2) Metal opening ratio ; 100% of land pattern

Plot Data



Measured DATA

1608mm(0603inch)Diplexer

RB

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TSD1N18D2G45NV068T

MP

Electrical Characteristics

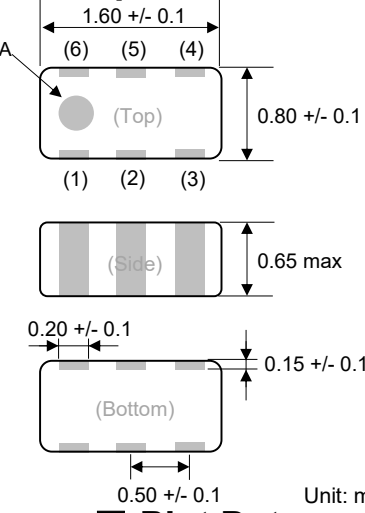
No.	TSD1N18D2G45NV068T		Specification			Unit	Remarks
			Min.	Typ.	Max.		
Low							(2)Com-(4)Low
1	Pass Band Frequency		2400	-	2482	MHz	
2	Insertion loss	2400-2482 MHz	-	0.26	0.40	dB	Ta= +25°C
			-	-	0.50	dB	Ta= -40 to +85°C
3	V.S.W.R.	2400-2482 MHz	-	1.17	1.43	-	Ta= -40 to +85°C
4	Attenuation	4800-5000 MHz	18	23.0	-	dB	
		5170-7125 MHz	23	28.8	-	dB	
		7200-7500 MHz	23	29.3	-	dB	
		9600-10000 MHz (*)	-	30.0	-	dB	
		12000-20000 MHz (*)	-	13.1	-	dB	
High							(2)Com-(6)High
1	Pass Band Frequency		5170	-	7125	MHz	
2	Insertion loss	5170-7125 MHz	-	1.21	1.50	dB	Ta= +25°C
			-	-	1.70	dB	Ta= -40 to +85°C
3	V.S.W.R.	5170-7125 MHz	-	1.28	1.67	-	Ta= -40 to +85°C
4	Attenuation	700-2690 MHz	25	29.1	-	dB	
		3400-3800 MHz	25	41.2	-	dB	
		3800-4200 MHz	20	28.8	-	dB	
		3840-4440 MHz	5	15.8	-	dB	
		10340-14250 MHz (*)	-	31.0	-	dB	
		15510-20000 MHz (*)	-	22.6	-	dB	
Isolation							
1	(4)Low to (6)High	700-2690 MHz	25	29.0	-	dB	Ta= -40 to +85°C
		3400-3800 MHz	25	40.3	-	dB	
		3800-4200 MHz	20	34.8	-	dB	
		5170-7125 MHz	23	29.6	-	dB	
Impedance							
1	Impedance		-	50	-	Ohm	All port
Power Handling at Pass Band							
1	Power Handling		-	-	+30	dBm	CW

(*)Reference

Operating Temp. -40 to +85 deg-C

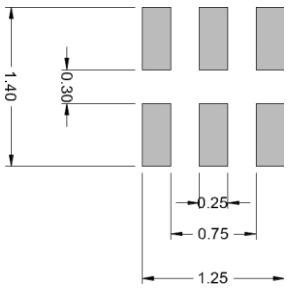
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Shapes & Dimensions



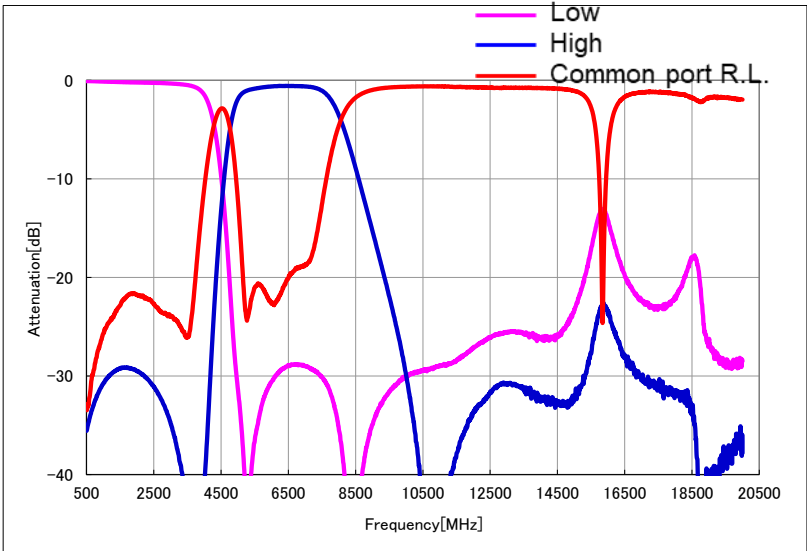
Terminal	
(1)	GND
(2)	Common
(3)	GND
(4)	Low band
(5)	GND
(6)	High Band
A	Marking dot

Example of land pattern



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Plot Data



Measured DATA

1608mm(0603inch) Diplexer

RB

F

Sim1

Sim2

Sim3

MP

TSD1N18D2G45LV0JZT

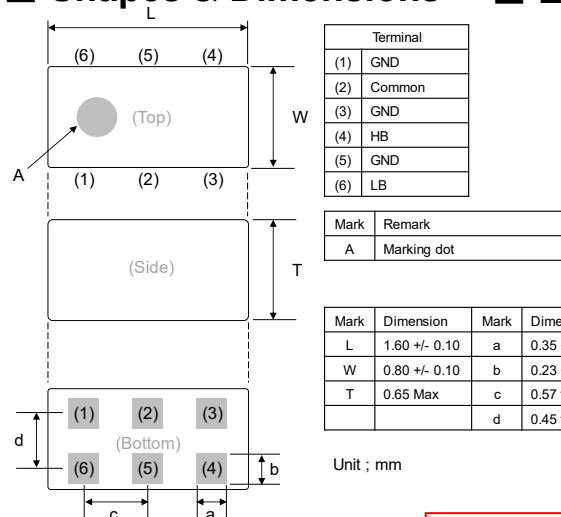
Electrical Characteristics

No.	TSD1N18D2G45LV0JZT		Specification			Unit	Remarks
			Min.	Typ.	Max.		
Low							(2)Com-(6)Low
1	Pass Band Frequency		2400	-	2500	MHz	
2	Insertion loss	2400-2500 MHz	-	0.69	1.00	dB	Ta= +25°C
			-	-	1.10	dB	Ta= -40 to +85°C
3	V.S.W.R.	2400-2500 MHz	-	1.1	2.0	-	
4	Attenuation	3300-3700 MHz	13	21.8	-	dB	Ta= -40 to +85°C
		3700-3800 MHz	22	30.4	-	dB	
		3800-5925 MHz	25	30.4	-	dB	
		5925-7125 MHz	10	35.8	-	dB	
High							(2)Com-(4)High
1	Pass Band Frequency		5150	-	7125	MHz	
2	Insertion loss	5150-7125 MHz	-	1.07	1.55	dB	Ta= +25°C
			-	-	1.65	dB	Ta= -40 to +85°C
3	V.S.W.R.	5150-7125 MHz	-	1.7	2.1	-	
4	Attenuation	617-2690 MHz	25	29.8	-	dB	Ta= -40 to +85°C
		3300-4200 MHz	15	27.6	-	dB	
		9200-10000 MHz (*)	10	29.0	-	dB	
Isolation							
1	(6)Low to (4)High	617-2690 MHz	25	30.8	-	dB	Ta= -40 to +85°C
		3300-4200 MHz	30	47.6	-	dB	
		5150-7125 MHz	28	37.7	-	dB	
Impedance							
1	Impedance		-	50	-	Ohm	All port
Power Handling at Pass Band							
1	Power Handling		-	-	+30	dBm	CW

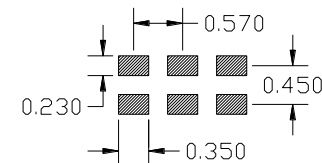
(*)Reference

Operating Temp. -40 to +85 deg-C

Shapes & Dimensions

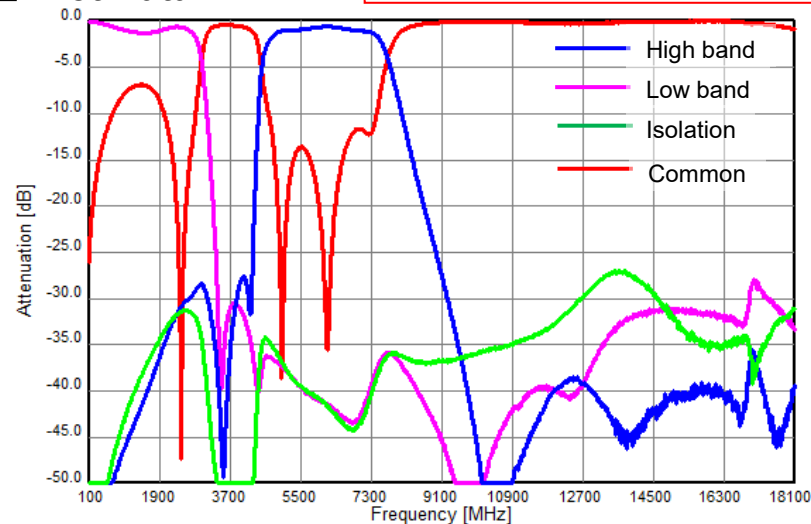


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(2) Metal opening ratio ; 100% of land pattern

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1608mm(0603inch) Diplexer

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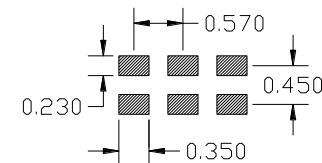
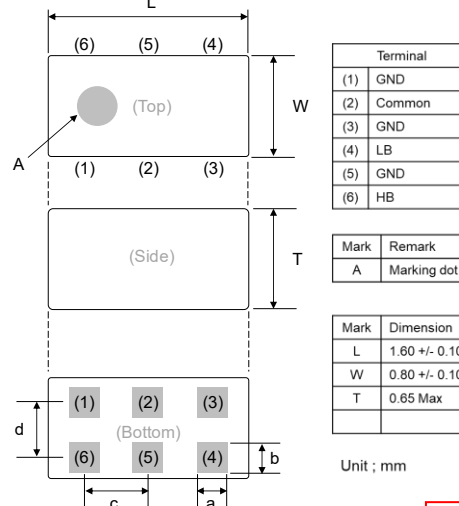
Electrical Characteristics

No.	TSD1N18D2G45LV0L4T		Specification			Unit	Remarks
			Min.	Typ.	Max.		
Low							(2)Com-(4)Low
1	Pass Band Frequency		2400	-	2500	MHz	
2	Insertion loss	2400-2500 MHz	-	0.69	1.00	dB	Ta= +25°C
			-	-	1.10	dB	Ta= -40 to +85°C
3	V.S.W.R.	2400-2500 MHz	-	1.1	2.0	-	Ta= -40 to +85°C
4	Attenuation	3300-3700 MHz	13	21.8	-	dB	
		3700-3800 MHz	22	30.4	-	dB	
		3800-5925 MHz	25	30.4	-	dB	
		5925-7125 MHz	10	35.8	-	dB	
High							(2)Com-(6)High
1	Pass Band Frequency		5150	-	7125	MHz	
2	Insertion loss	5150-7125 MHz	-	1.07	1.55	dB	Ta= +25°C
			-	-	1.65	dB	Ta= -40 to +85°C
3	V.S.W.R.	5150-7125 MHz	-	1.7	2.1	-	Ta= -40 to +85°C
4	Attenuation	617-2690 MHz	25	29.8	-	dB	
		3300-4200 MHz	15	27.6	-	dB	
		9200-10000 MHz (*)	10	29.0	-	dB	
Isolation							
1	(4)Low to (6)High	617-2690 MHz	25	30.8	-	dB	Ta= -40 to +85°C
		3300-4200 MHz	30	47.6	-	dB	
		5150-7125 MHz	28	37.7	-	dB	
Impedance							
1	Impedance		-	50	-	Ohm	All port
Power Handling at Pass Band							
1	Power Handling		-	-	+30	dBm	CW

(*)Reference

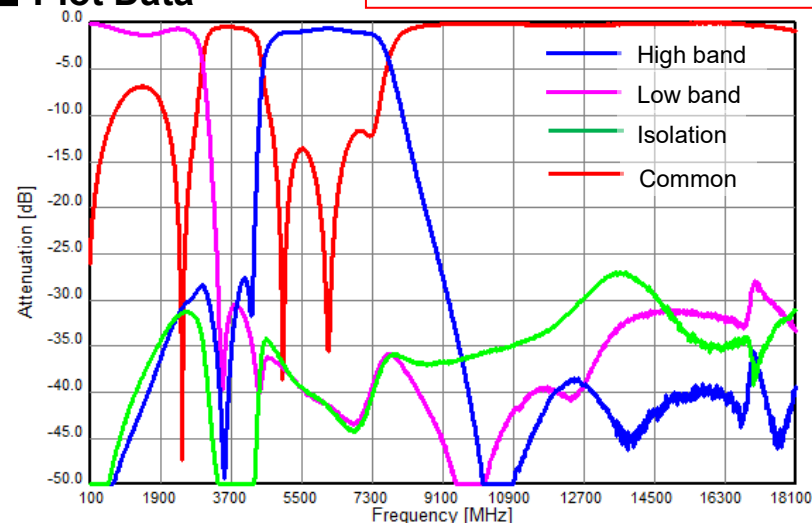
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