

Diplexer

Part Number : [LFD182G45MJZF465](#)

1. Maximum Ratings

	Ratings	Conditions
Operating Temperature	-40 ~ +85 °C	
Power Capacity	1W	50Ω Load

2. Electrical Characteristics (at -40 ~ +85 °C)

■ Low Band

Item		Frequency (MHz)	SPEC			Unit
			Min.	Typ.(+25°C)	Max.	
Insertion Loss	at +25°C	2400.00 ~ 2500.00	-	0.56	0.70	dB
	at -40 ~ +85°C	2400.00 ~ 2500.00	-	0.56	0.90	dB
Return Loss		2400.00 ~ 2500.00	13.5	17.5	-	dB
Attenuation (Absolute value)		30.00 ~ 1000.00	13.5	16.0	-	dB
		4800.00 ~ 7125.00	31.5	30.8	-	dB
		7200.00 ~ 7500.00	36.2	42.4	-	dB
		7700.00 ~ 7950.00	34.0	43.0	-	dB
		7950.00 ~ 12000.00	32.0	40.3	-	dB

■ High Band

Item		Frequency (MHz)	SPEC			Unit
			Min.	Typ.(+25°C)	Max.	
Insertion Loss	at +25°C	5150.00 ~ 5875.00	-	1.15	1.60	dB
	at -40 ~ +85°C	5150.00 ~ 5875.00	-	1.15	1.90	dB
	at +25°C	5875.00 ~ 7125.00	-	1.14	2.00	dB
	at -40 ~ +85°C	5875.00 ~ 7125.00	-	1.14	2.30	dB
Return Loss		5150.00 ~ 7125.00	6.0	10.8	-	dB
Attenuation (Absolute value)		100.00 ~ 1000.00	39.5	45.1	-	dB
		2400.00 ~ 2500.00	29.5	33.2	-	dB
		2700.00 ~ 3500.00	19.5	24.8	-	dB
		3600.00 ~ 4200.00	11.0	23.8	-	dB
		4200.00 ~ 4400.00	3.0	13.0	-	dB
		10300.00 ~ 14250.00	25.0	40.0	-	dB
		15450.00 ~ 21375.00	19.0	33.2	-	dB

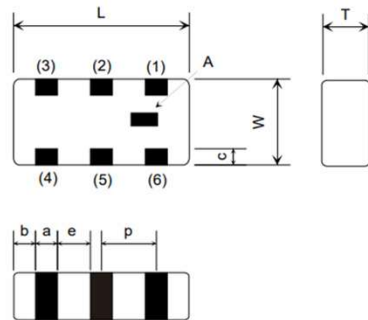
■ Common

Item		Frequency (MHz)	SPEC			Unit
			Min.	Typ.(+25°C)	Max.	
Return Loss		2400.00 ~ 2500.00	13.5	-	-	dB
		5150.00 ~ 7125.00	4.0	-	-	dB

■ Isolation

Item		Frequency (MHz)	SPEC			Unit
			Min.	Typ.(+25°C)	Max.	
Isolation LB-HB		2400.00 ~ 2500.00	13.5	17.1	-	dB
		4800.00 ~ 7125.00	24.0	30.2	-	dB
		11900.00 ~ 14250.00	34.0	36.9	-	dB
		14700.00 ~ 21375.00	24.0	36.6	-	dB

3. Construction, Dimensions & Marking



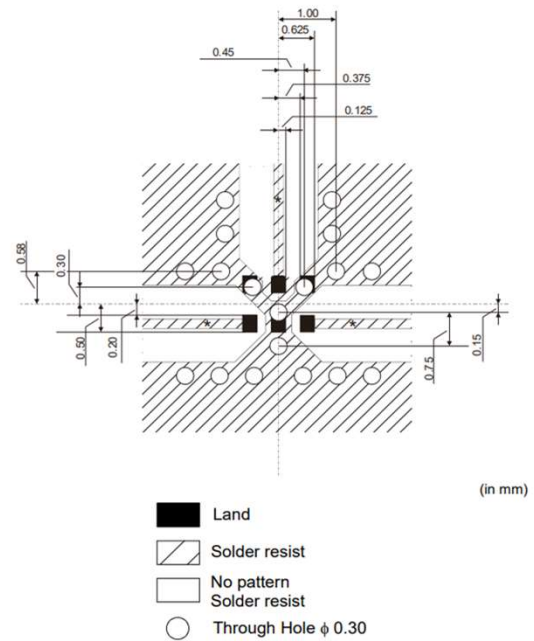
Mark	Meaning
A	Directional Input Mark

Mark	Dimension	Mark	Dimension	Mark	Dimension
L	1.6 +/- 0.1	a	0.2 +/- 0.1	e	0.3 +/- 0.1
W	0.8 +/- 0.1	b	0.20 +/- 0.15	p	0.50 +/- 0.05
T	0.65 max.	c	0.175+0.075 /-0.125	-	-

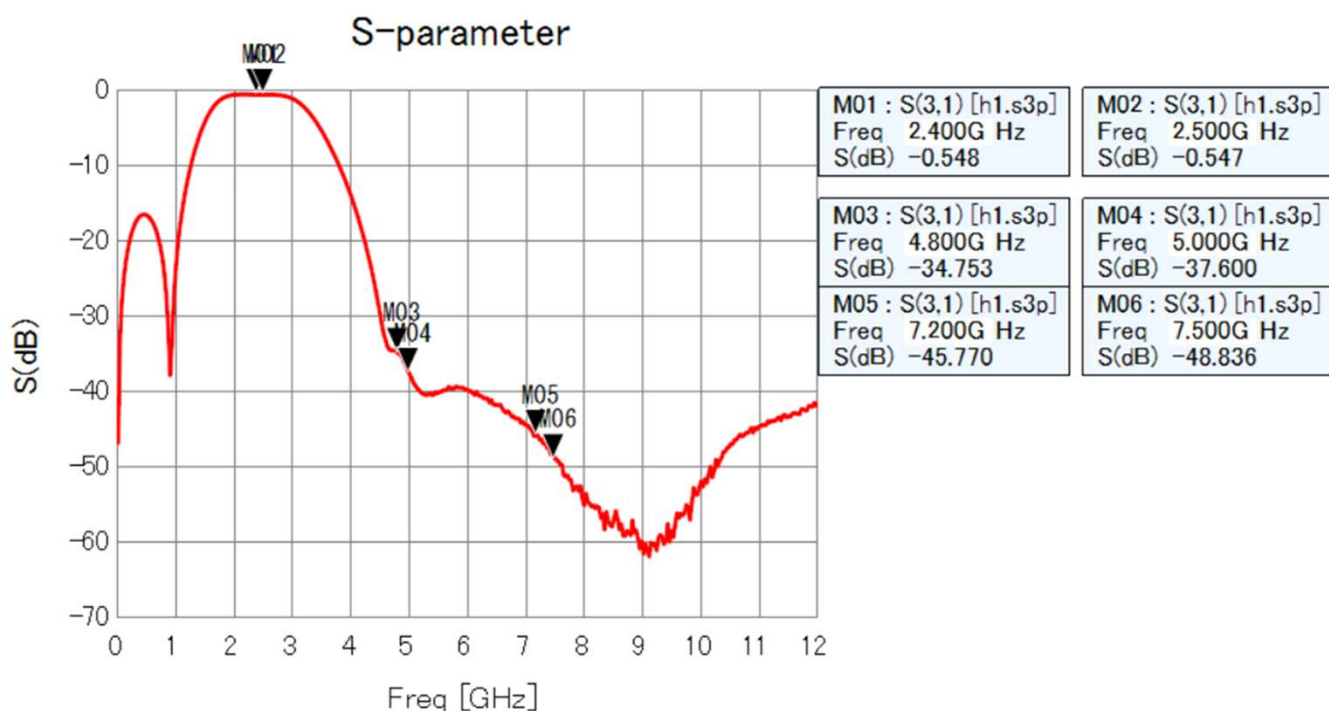
TERMINAL CONFIGURATION

Terminal No.	Terminal Name	Terminal No.	Terminal Name
(1)	High Band Port	(4)	GND
(2)	GND	(5)	Common Port
(3)	Low Band Port	(6)	GND

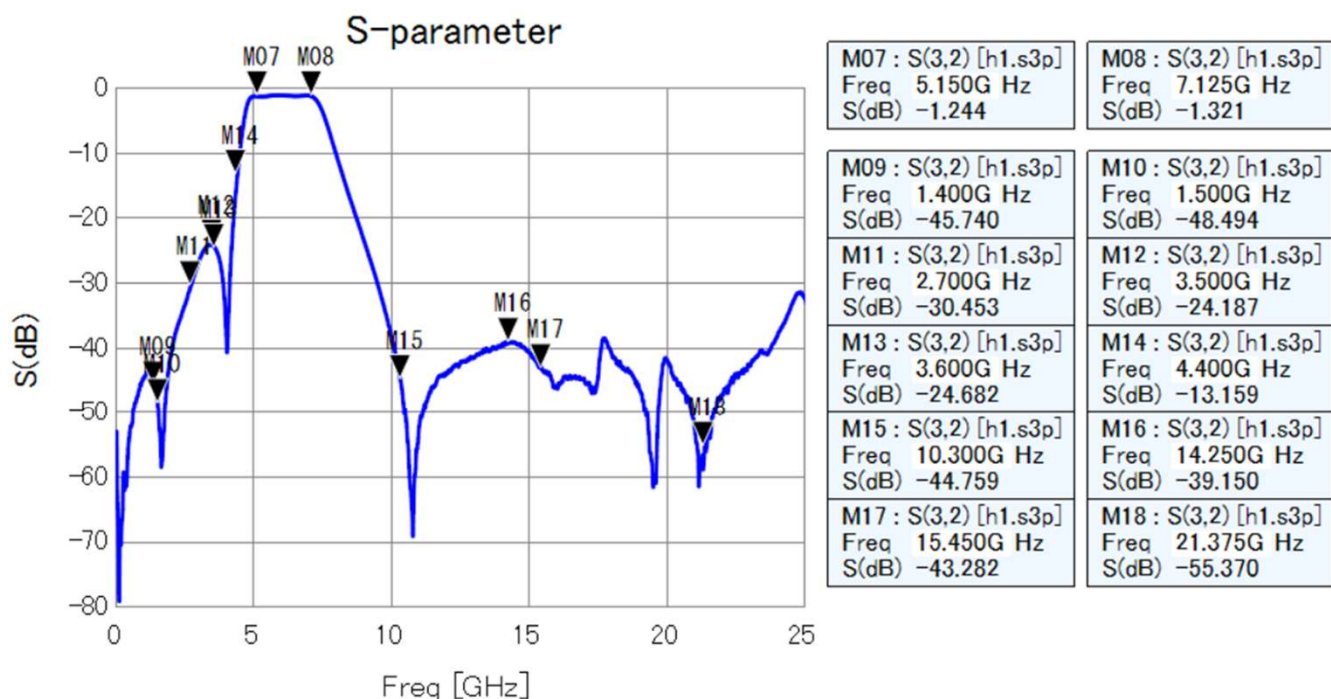
4. Land Pattern



*Line width to be designed to match 50 Ω characteristic impedance, Depending on PCB material and thickness.



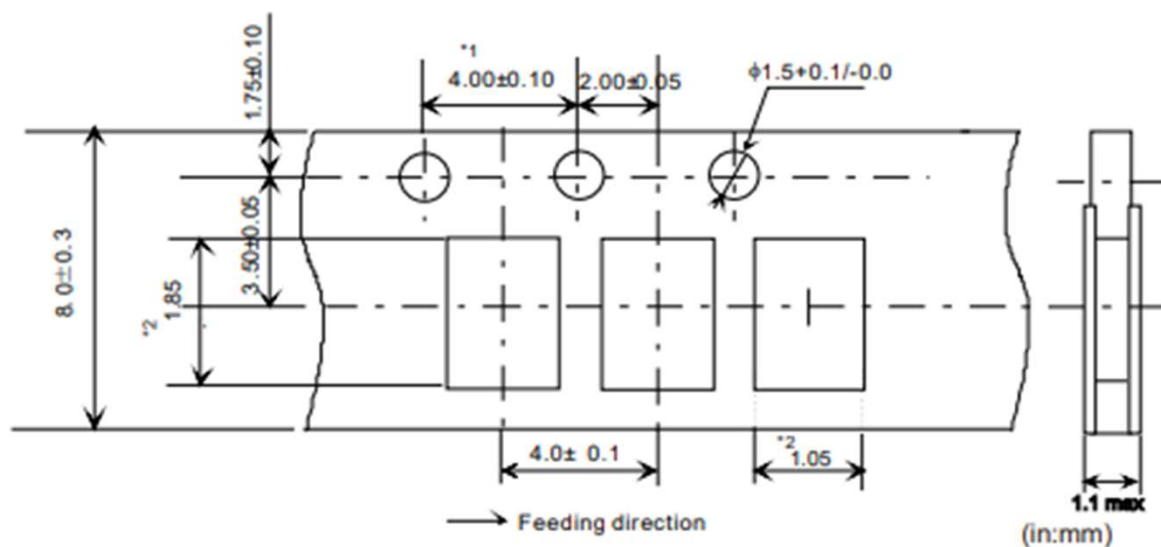
HB



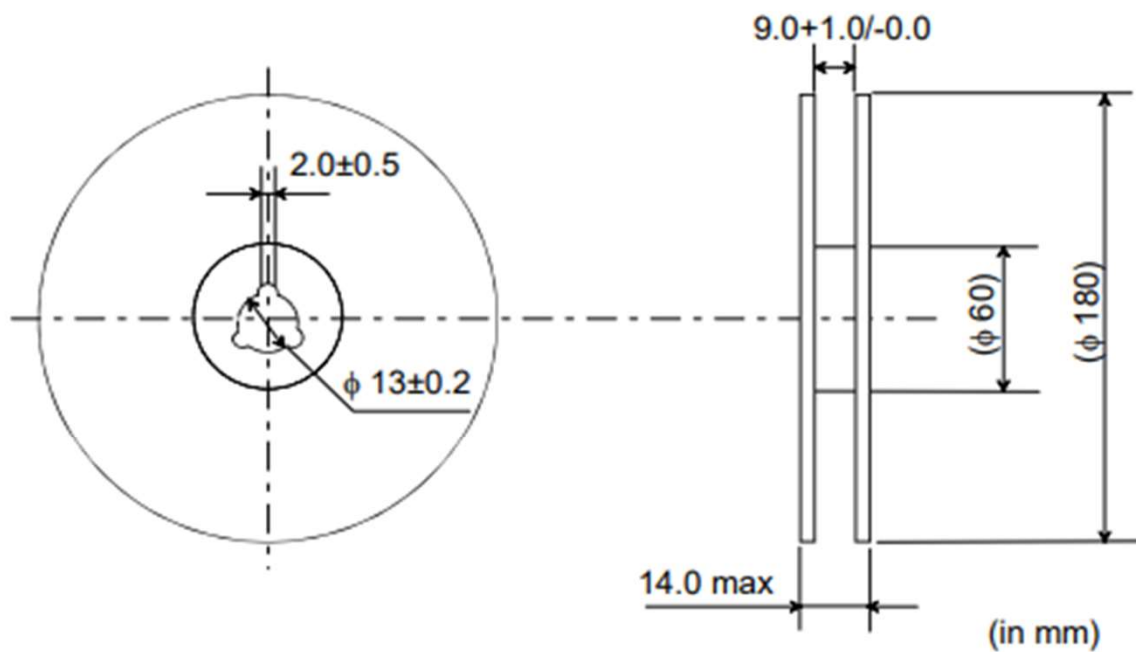
5. Tape and Reel Packing

(1) Dimensions of Tape (Paper tape)

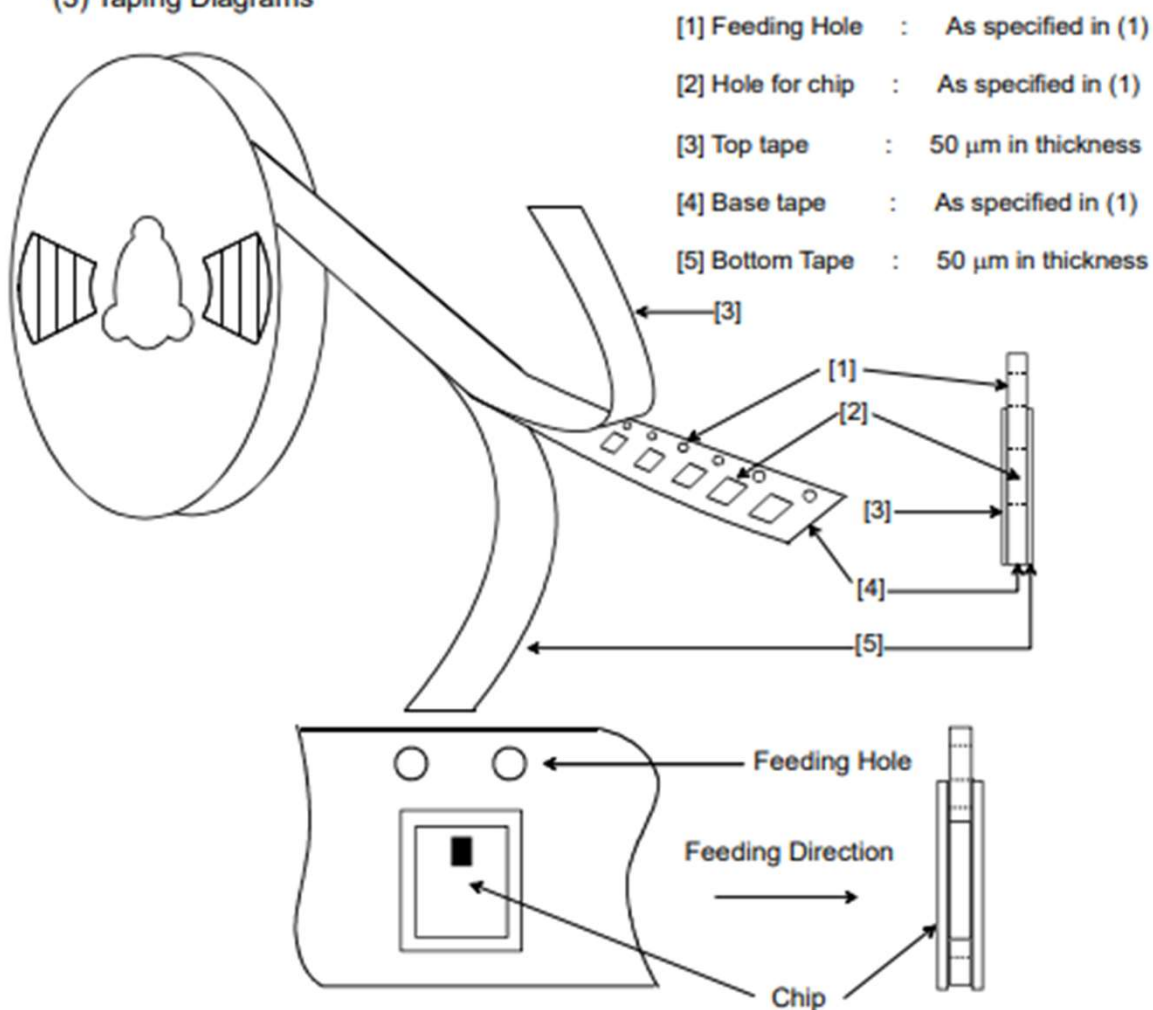
- *1 Cumulative tolerance of max. ± 0.3 every 10 pitches
- *2 Reference value



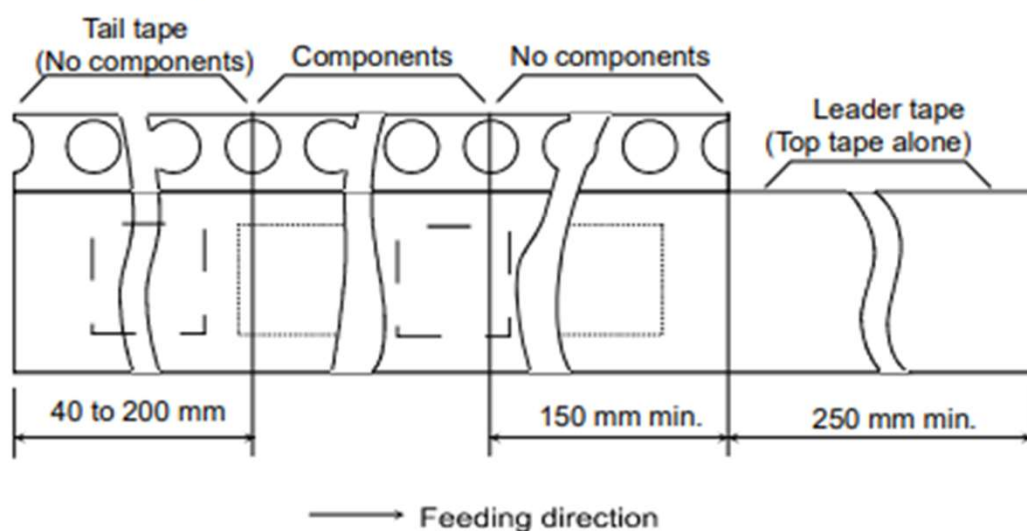
(2) Dimensions of Reel



(3) Taping Diagrams

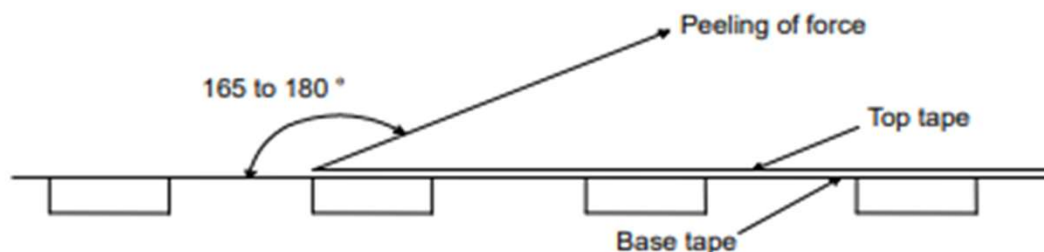


(4) Leader and Tail tape



- (5) The tape for chips are wound clockwise, the feeding holes to the right side as the tape is pulled toward the user.
- (6) The top tape and bottom tape shall not protrude the edges of the tape, and shall not cover sprocket holes.
- (7) The top tape and base tape are not adhered at no components area for 250 mm min.
- (8) Tear off strength against pulling of top tape and bottom tape : 5N min.
- (9) Packaging unit : 4000 pcs. / reel
- (10) Material : Base tapePaper
ReelPlastic
- (11) Peeling of force : in the direction of peeling as shown below.
Peeling speed : 300mm/min \pm 10mm/min

Tape width	Peeling of force (max)
8mm	1.0N
12-56mm	1.3N
72-200mm	1.5N





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- Application of similar complexity and/ or reliability requirements to the applications listed in the above.
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