

# Thin-Film RF/Microwave Filters

## BP0805 Band Pass Filter SMD 5W

### General Information



#### ITF TECHNOLOGY

The BP0805 Band Pass Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

#### FEATURES

- Small size: 0805
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C – +105°C
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- 5G / 6G / UWB Applications
- Base Stations
- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

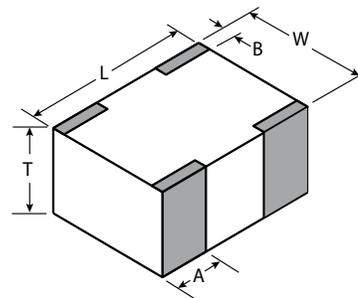
Finished parts are 100% tested for electrical parameters and visual/ mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

#### TERMINATION

Nickel/ Lead free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### DIMENSIONS (TOP VIEW)



mm (inches)

L	2.03±0.1 (0.080±0.004)
W	1.55±0.1 (0.061±0.004)
T	0.80±0.1 (0.032±0.004)
A	0.56±0.25 (0.022±0.010)
B	0.35±0.15 (0.014±0.006)

#### ELECTRICAL SPECIFICATIONS TABLE

Part Number	Passband			Stopband Rejection (GHz)										Continuous Power
	Frequency (MHz)	I.L dB (max)	R.L dB (Typ)	Low Band		High Band								
				Band	Rejection	Band	Rejection	Band	Rejection	Band	Rejection	Band	Rejection	
				MHz	dB	MHz	dB	MHz	dB	MHz	dB	MHz	dB	
BP0805A1308ASTR	1220-1420	-2.0	-12	760-945	-16	2920-3105	-30	--	--	--	--	--	--	5W
BP0805A1457ASTR	1447-1467	-1.5	-11	DC-500	-30	500-960	-20	2110-2400	-25	2500-3600	-30	5150-6000	-19	
BP0805A1795ASTR	1785 - 1805	-1.8	-15	869-894	-30	925-960	-20	2300-2400	-30	2496-3600	-25	5150-5925	-25	
BP0805A2065ASTR	1930-2200	-1.3	-12	DC-1000	-20	4000-5000	-25	5000-6000	-30	---	---	---	---	
BP0805A2160ASTR	1960-2360	-0.85	-18	DC-440	-59	4320	-42	6480	-38	---	---	---	---	
BP0805A3500ASTR	3400-3600	-1.3	-15	DC-2000	-20	5250-7000	-25	7000-9000	-15	9000-10500	-10	---	---	
BP0805A3600ASTR	3500-3700	-1.3	-15	DC-2000	-30	5300-7200	-25	7200-11000	-10	---	--	---	---	
BP0805A3700ASTR	3600-3800	-1.3	-15	DC-2000	-30	5300-7400	-25	7400-11500	-10	----	---	---	---	
BP0805A3900ASTR	3600-4200	-2.5	-18	DC-3000	-10	5100-6550	-22	6550-10000	-25	----	---	---	---	
BP0805A4050ASTR	4000-4100	-1.3	-18	DC-2000	-25	6000-8000	-20	10000-12000	-12	----	---	---	---	
BP0805A4320ASTR	4120-4520	-1.2	-15	DC-2160	-45	6480	-39	8640	-44	--	--	---	---	
BP0805A5805ASTR	5795 - 5815	-2	-15	DC-4000	-30	7000 - 10000	-20	---	---	---	---	---	---	
BP0805A7250ASTR	6625-7875	-1.5	-12	DC-5400	-25	10000-15000	-25	----	-	-	-	---	---	

Click on part number to see full specifications

Custom Band Pass Filters are Available Per Request



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## BP0805 Band Pass Filter SMD 5W

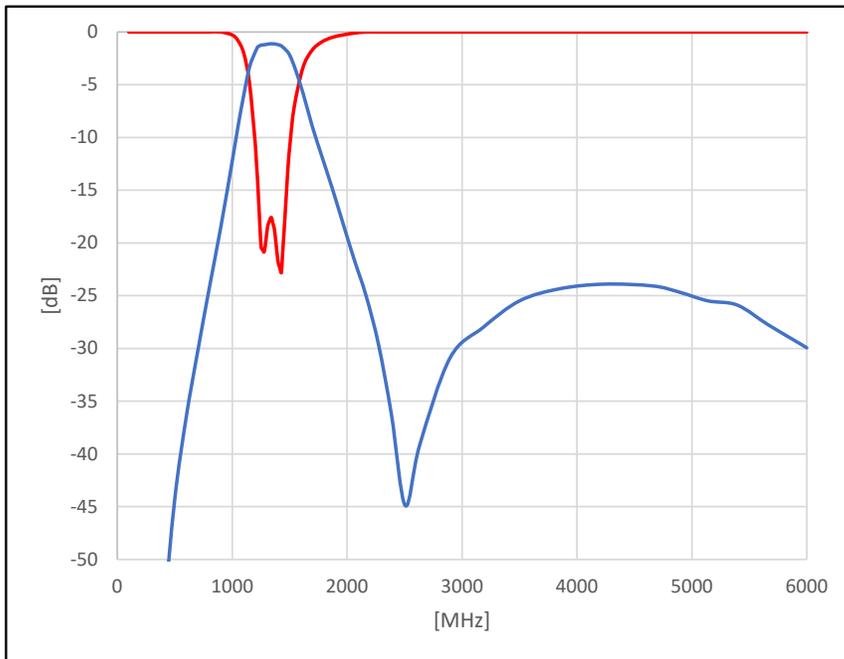
### BP0805A1308ASTR



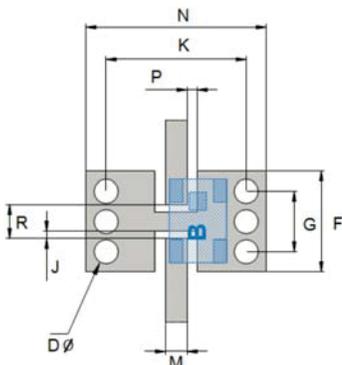
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	1308 MHz
Impedance	50 Ohm
Band	1220-1420 MHz
I. loss at center frequency	-1.2dB max.
In-band insertion loss flatness	-0.8dB
In-band return loss	-12dB
Rejection in [760-945 MHz]	-16dBc.
Rejection in [2920-3105 MHz]	-30dBc
Power handling (CW)	5W

[Click here to return to main table](#)



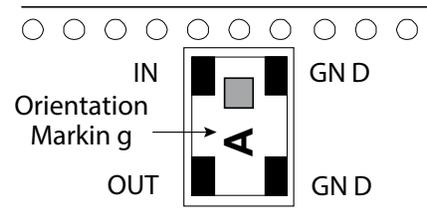
#### RECOMMENDED PAD LAYOUT



mm	
F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
 \*\* PCB: Taconic Orceer RF-35P

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")  
 \*\* PCB : Taconic Orceer RF-35P

EVB P/N: 544-7066

# Thin-Film RF/Microwave Filters

## BP0805 Band Pass Filter SMD 5W

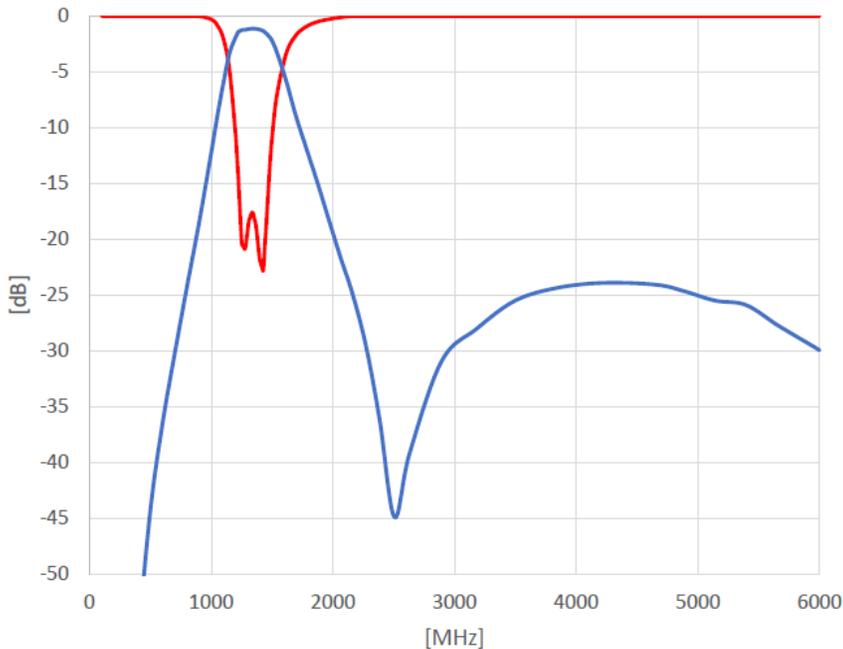
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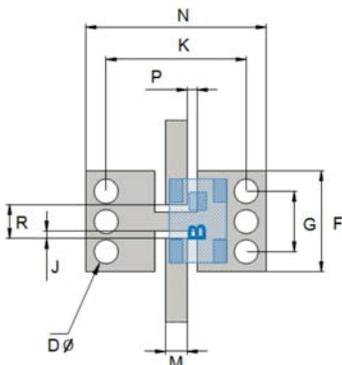
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	1457 MHz
Impedance	50 Ohm
Band	1447-1467 MHz
I. loss 1447-1467 MHz	-1.5dB max.
In-band VSWR (return loss)	< -1.8 (-11dB)
Rejection 925-960 MHz	>= -20dB
Rejection in 2110-2170 MHz	>= -25dB
Rejection in 2300-2400 MHz	>= -25dB
Rejection in 2500-2690 MHz	>= -30dB
Rejection 3400-3600 MHz	>= -30dB
Rejection 5150-5925 MHz	>= -19dB
Power handling (CW)	5W

[Click here to return to main table](#)

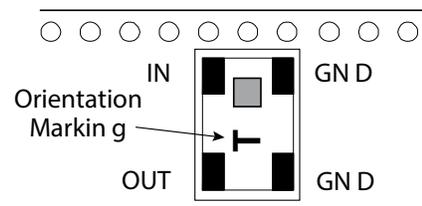


#### RECOMMENDED PAD LAYOUT: (mm)



F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")

\*\* PCB : Taconic Orcer RF-35P

**EVB P/N: 544-7066**

The recommended distance to the PCB Ground Plane is 0.254mm (0.01")  
\*\* PCB: Taconic Orcer RF-35P



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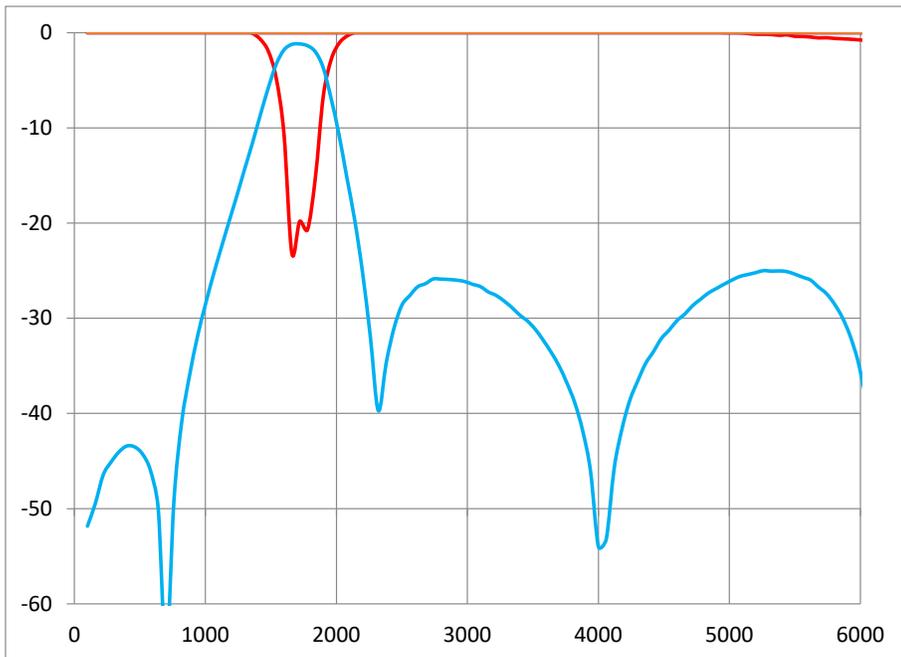
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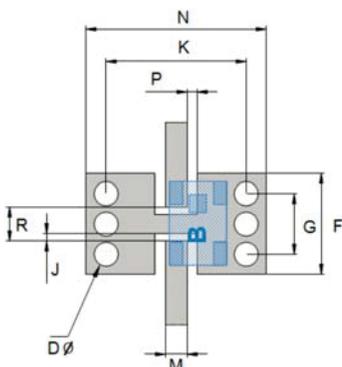
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	1795 MHz
Impedance	50 Ohm
Band	1785-1805 MHz
I. loss in band	-1.8dB max.
Return loss in band	-15dB
Rejection in [869~894 MHz]	-30dB min.
Rejection in [925~960 MHz]	-30dB min
Rejection in [2300~2400 MHz]	-30dB min
Rejection in [2496~2690 MHz]	-30dB
Rejection in [3400~3600 MHz]	-30dB
Rejection in [5150~5925 MHz]	-30dB
Power handling (CW)	5W

[Click here to return to main table](#)



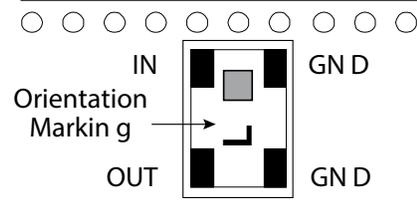
#### RECOMMENDED PAD LAYOUT: (mm)



mm	Value
F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
 \*\* PCB: Taconic Orcon RF-35P

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")  
 \*\* PCB : Taconic Orcon RF-35P

**EVB P/N:** 544-7066

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## BP0805 Band Pass Filter SMD 5W

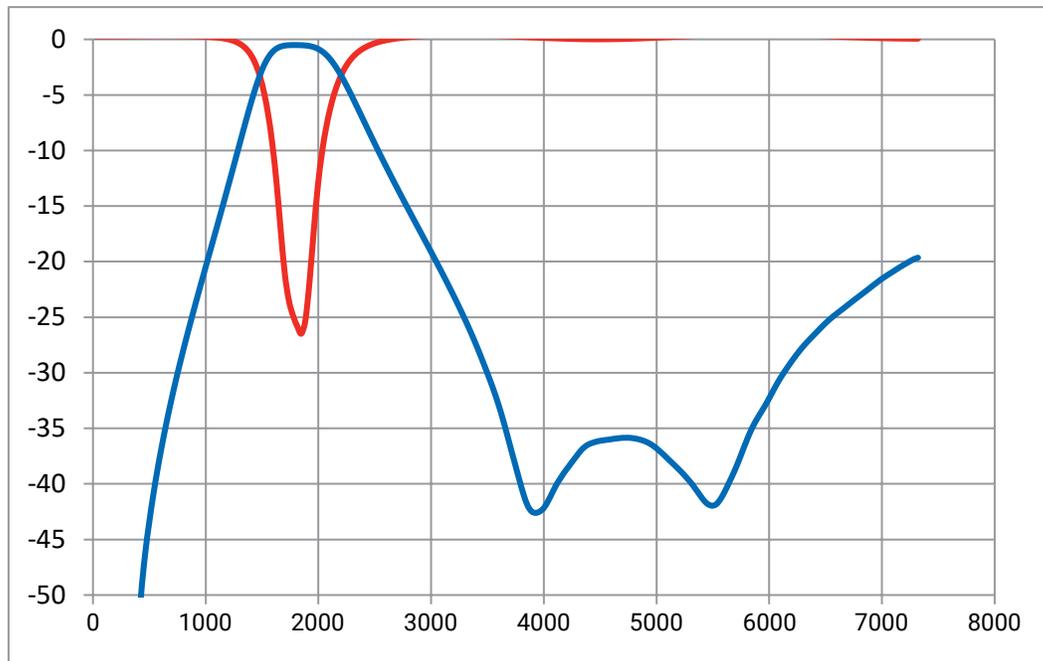
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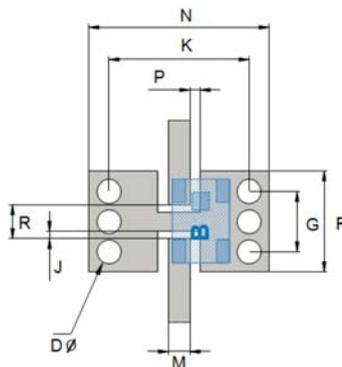
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	2065 MHz
Impedance	50 Ohm
Band	1930-2200 MHz
I. loss in-band	-1.3dB
Return loss in-band	-12 dB
Attenuation @ DC-1000 MHz	-20 dB
Attenuation @ 4000-5000 MHz	-25 dB
Attenuation @ 5000-6000 MHz	-30 dB
Power handling (CW)	5W

[Click here to return to main table](#)

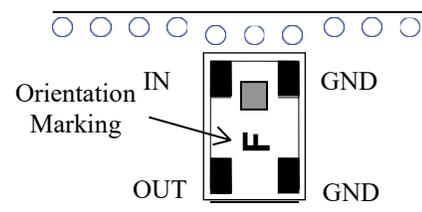


#### RECOMMENDED PAD LAYOUT: (mm)



F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")

\*\* PCB : Taconic Orcer RF-35P

**EVB P/N: 544-7066**

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
\*\* PCB: Taconic Orcer RF-35P



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## BP0805 Band Pass Filter SMD 5W

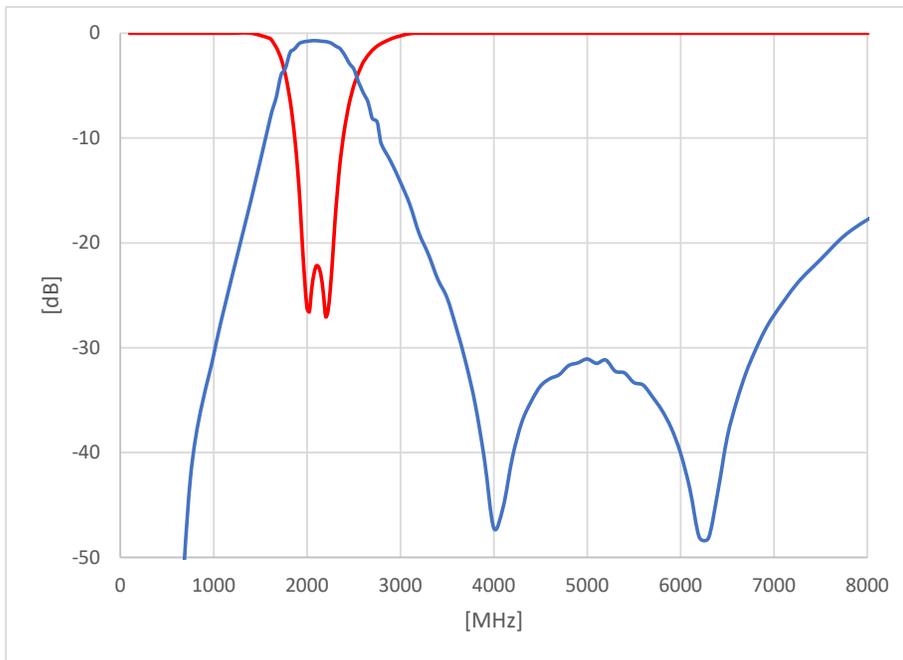
### BP0805A2160ASTR



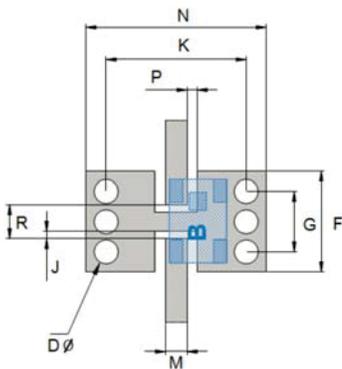
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	2160 MHz
Impedance	50 Ohm
Band	1960-2360 MHz
I. loss at center frequency	-0.85dB max
In-band return loss	-18dB
Rejection at 440 MHz	-59dB
Rejection at 4320 MHz	-42dB
Rejection at 6480 MHz	-38dB
Power handling (CW)	5W

[Click here to return to main table](#)



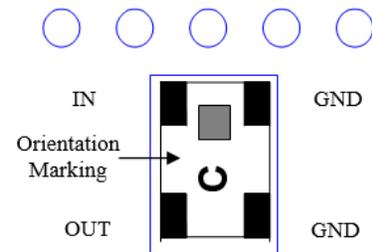
#### RECOMMENDED PAD LAYOUT: (mm)



F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
 \*\* PCB: Taconic Orcer RF-35P

#### TERMINALS AND LAYOUT: (Top View)



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\*\* PCB : Taconic Orcer RF-35P

EVB P/N: 544-7066

# Thin-Film RF/Microwave Filters

## BP0805 Band Pass Filter SMD 5W

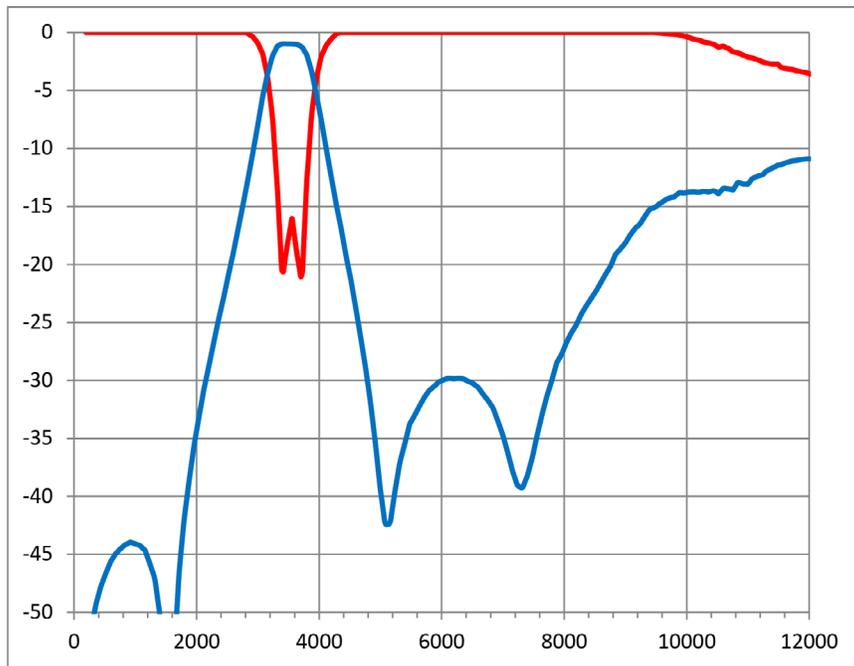
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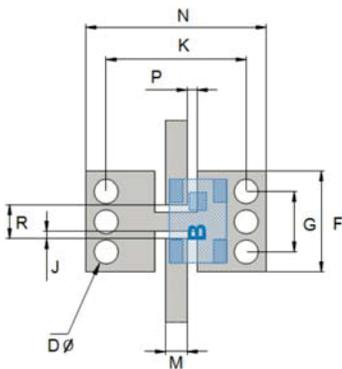
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	3500 MHz
Impedance	50 Ohm
I. loss 3400-3600 MHz	-1.3dB max.
In-band return loss	-15dB
Rejection in [370 – 2000 MHz]	-20dBc min.
Rejection in [5250-7000 MHz]	-25dBc min
Rejection in [7000-9000 MHz]	-15dBc min
Power Handling (CW)	5 Watt

[Click here to return to main table](#)



#### RECOMMENDED PAD LAYOUT: (mm)

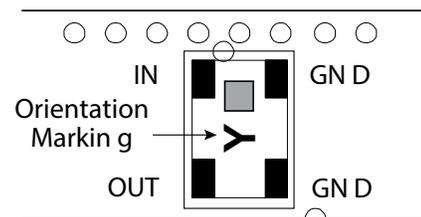


F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")

\*\* PCB: Taconic Orcer RF-35P

#### TERMINALS AND LAYOUT: (Top View)



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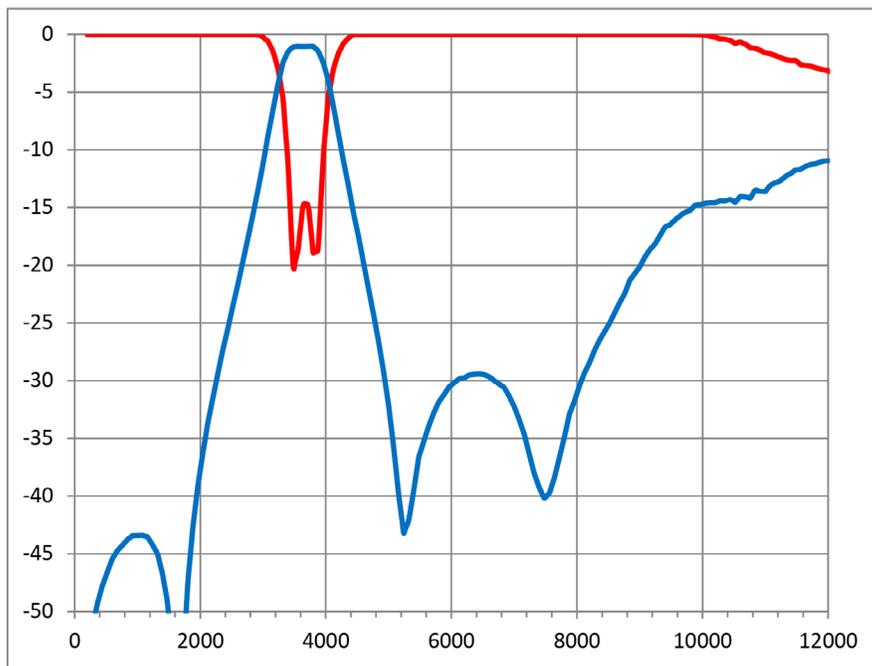
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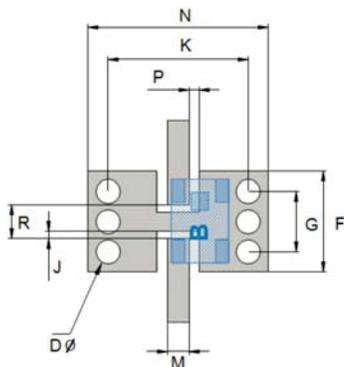
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	3600 MHz
Impedance	50 ohm
I. loss 3500-3700MHz	-1.3dB max.
In-band return loss	-15dB
rejection in [370 - 2000MHz]	-25dBc min.
rejection in [5300-7200MHz]	-25dBc min
rejection in [7200-11000MHz]	-10dBc min
power handling (CW)	5 Watt

[Click here to return to main table](#)

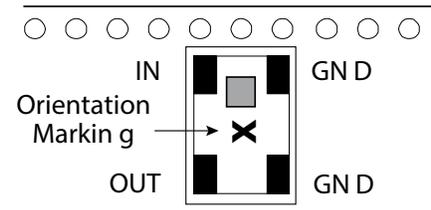


#### RECOMMENDED PAD LAYOUT: (mm)



F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")

\*\* PCB : Taconic Orcer RF-35P

**EVB P/N: 544-7066**

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## BP0805 Band Pass Filter SMD 5W

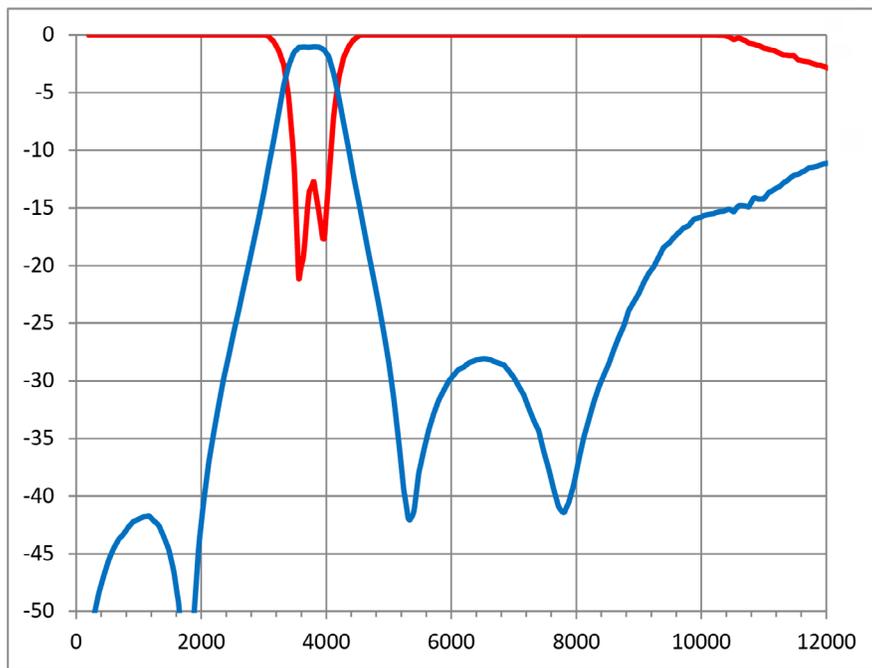
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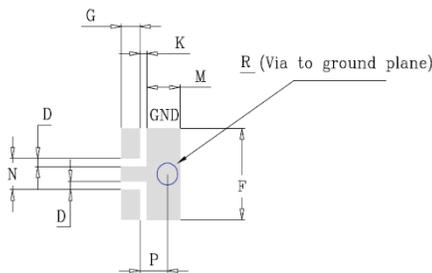
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	3700 MHz
Impedance	50 Ohm
I. loss 3600-3800 MHz	-1.3dB max.
In-band return loss	-15dB
rejection in [370 – 2000 MHz]	-25dBc min.
rejection in [5300-7400 MHz]	-25dBc min
rejection in [7400-11500 MHz]	-10dBc min
power handling (CW)	5 Watt

[Click here to return to main table](#)



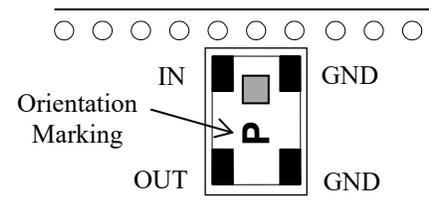
#### RECOMMENDED PAD LAYOUT: (mm)



R	∅0.6
G	0.54
K	0.2
N	0.85
M	0.95
F	2.5
P	0.79
D	0.225

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
 \*\* PCB: Taconic Orcer RF-35P

#### TERMINALS AND LAYOUT: (Top View)



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**EVB P/N: 544-7066**

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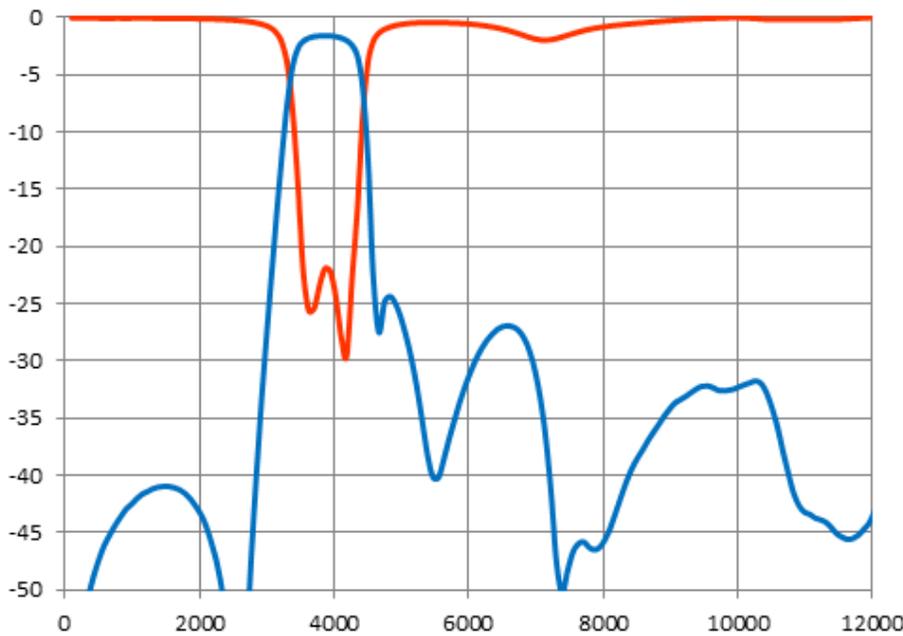
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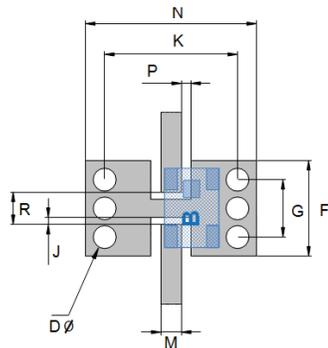
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	3900 MHz
Impedance	50 Ohm
I. loss 3600-4200 MHz	-2.5 dB
Return loss in-band	-18 dB
Rejection in [DC - 3000 MHz]	-10 dB
Rejection in [5100-6550 MHz]	-22 dB
Rejection in [6550-10000 MHz]	-25 dB
Power handling (CW)	5 Watt

[Click here to return to main table](#)

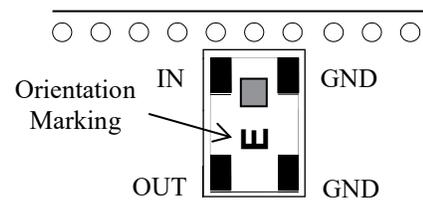


#### RECOMMENDED PAD LAYOUT: (mm)



F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")

\*\* PCB : Taconic Orcer RF-35P

**EVB P/N: 544-7066**

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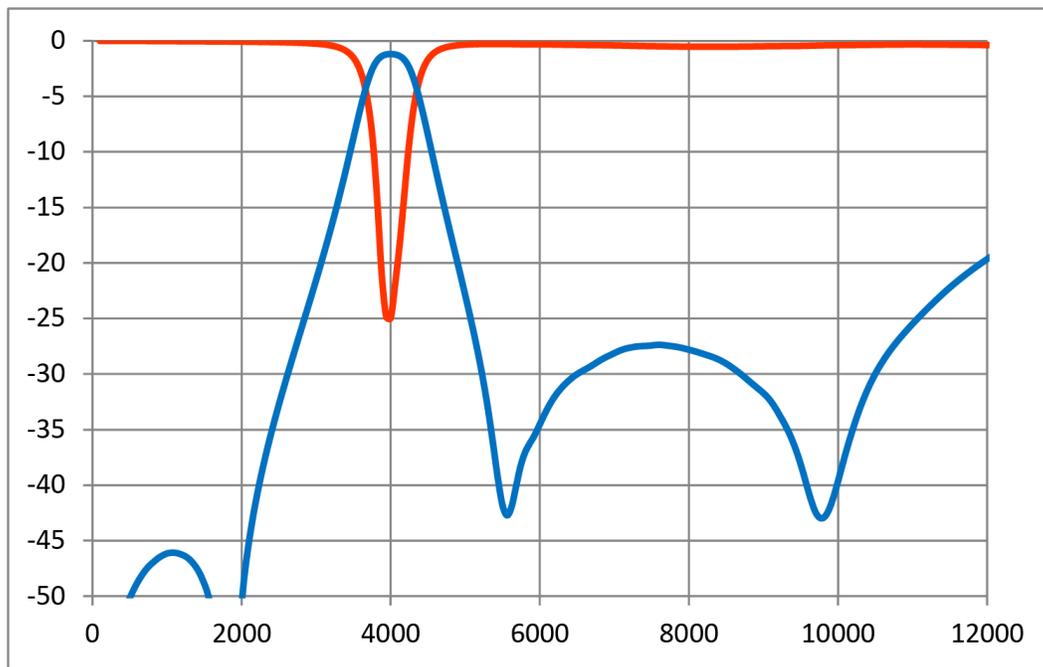
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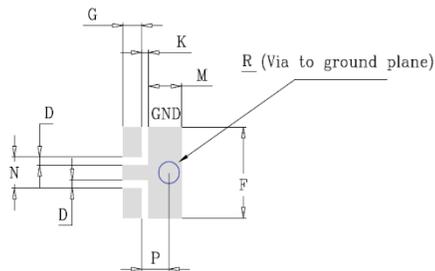
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	4050 MHz
Impedance	50 ohm
I. loss 4000-4100MHz	-1.3dB max.
In-band return loss	-18dB
Rejection in DC-2000MHz	-25dBc min.
Rejection in 6000-8000MHz	-25dBc min
Rejection in 10000-12000MHz	-15dBc min
Power handling (CW)	5 Watt

[Click here to return to main table](#)



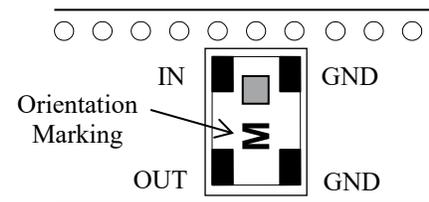
#### RECOMMENDED PAD LAYOUT: (mm)



mm	
R	ø0.6
G	0.54
K	0.2
N	0.85
M	0.95
F	2.5
P	0.79
D	0.225

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
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#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")  
 \*\* PCB : Taconic Orcer RF-35P

**EVB P/N: 544-7066**

# Thin-Film RF/Microwave Filters

## BP0805 Band Pass Filter SMD 5W

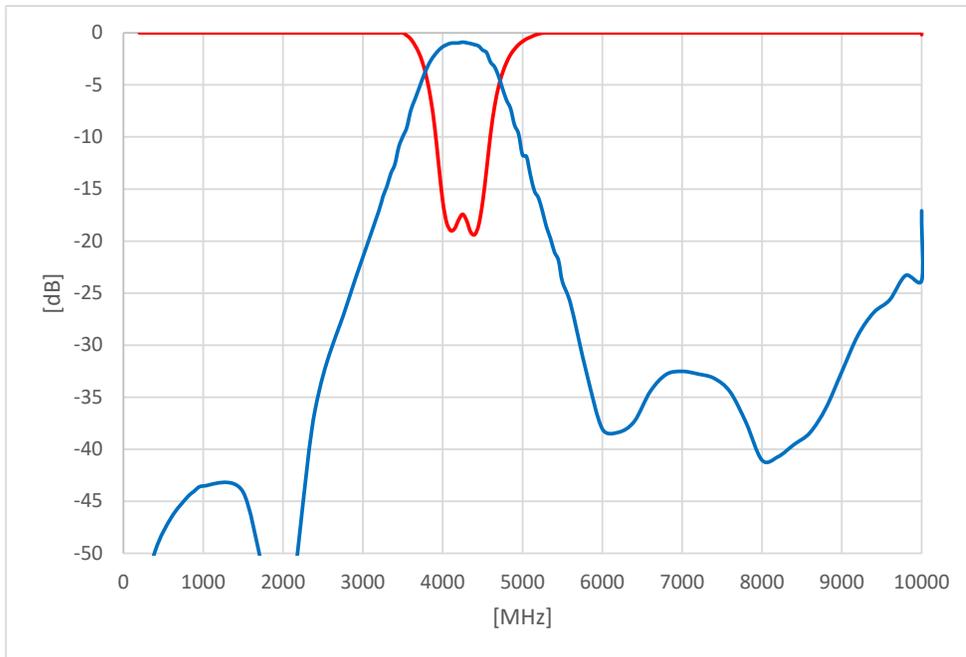
### BP0805A4320ASTR



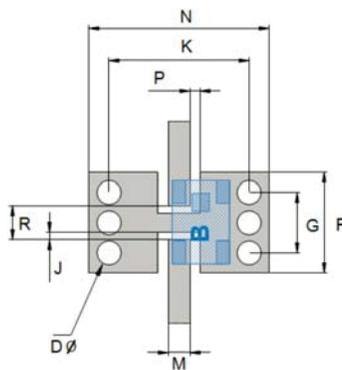
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	4320 MHz
Impedance	50 Ohm
Band	4120-4520 MHz
I. loss at center frequency	1.2dB max
In-band return loss	15dB
Rejection at 2160 MHz	45dBc min
Rejection at 6480 MHz	39dBc min
Rejection at 8640 MHz	44dBc min
Power handling (CW)	5W

[Click here to return to main table](#)

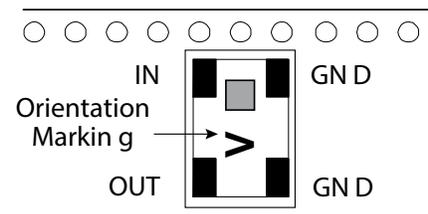


#### RECOMMENDED PAD LAYOUT: (mm)



mm	
F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")

\*\* PCB : Taconic Orcer RF-35P

**EV B P/N: 544-7066**

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
 \*\* PCB: Taconic Orcer RF-35P

# Thin-Film RF/Microwave Filters

## BP0805 Band Pass Filter SMD 5W

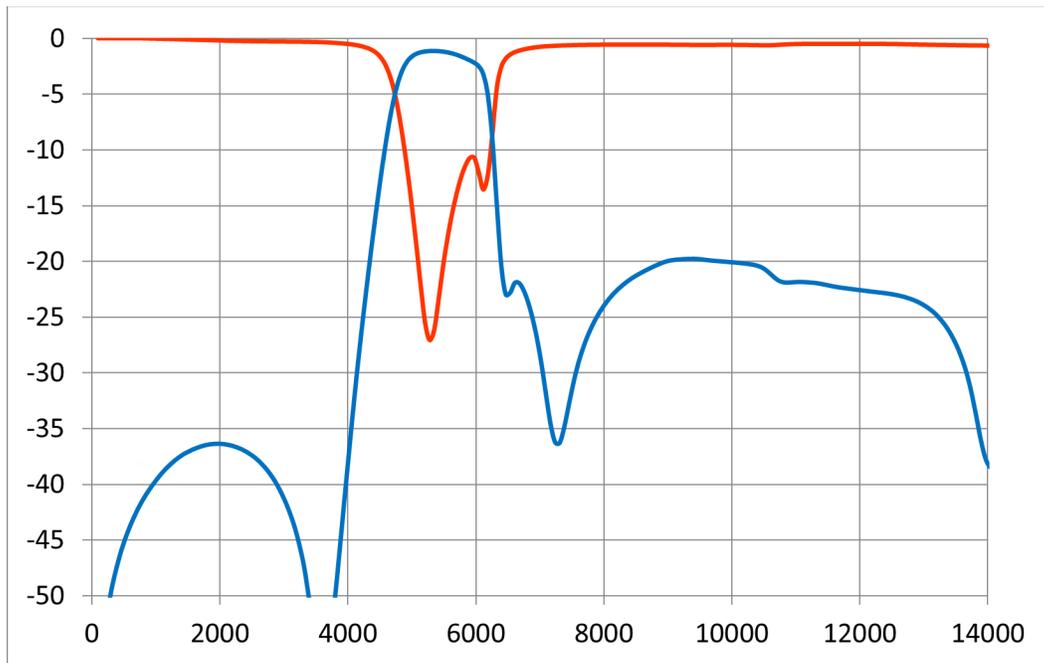
### BP0805A5805ASTR



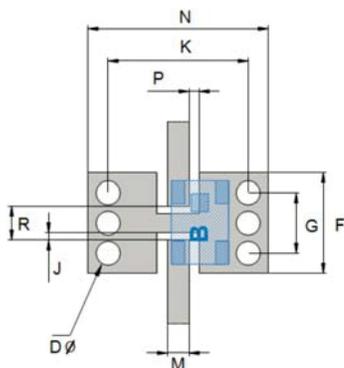
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	5805 MHz
Impedance	50 Ohm
I. loss 5795 - 5815 MHz	-2.0 dB
In-band return loss	-15 dB
Rejection at [DC - 4000 MHz]	-30 dB
Rejection at [7000 - 10000 MHz]	-20 dB
Power handling (CW)	5W

[Click here to return to main table](#)



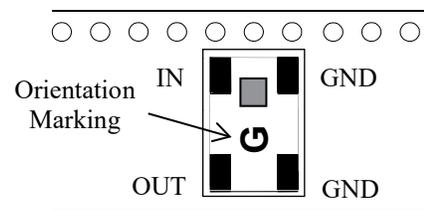
#### RECOMMENDED PAD LAYOUT: (mm)



mm	Value
F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
 \*\* PCB: Taconic Orcer RF-35P

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")  
 \*\* PCB : Taconic Orcer RF-35P

**EVB P/N: 544-7066**

# Thin-Film RF/Microwave Filters

## BP0805 Band Pass Filter SMD 5W

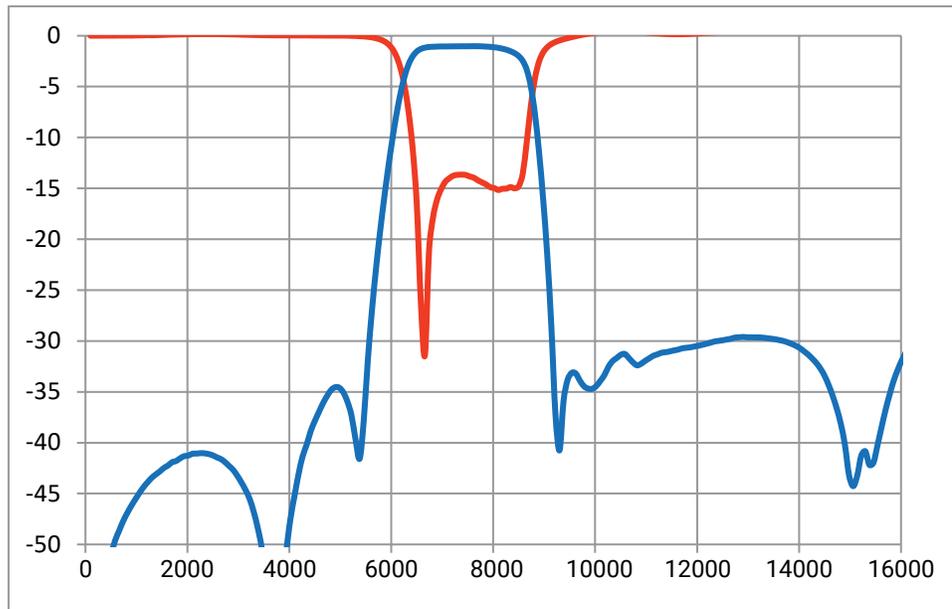
### BP0805A7250ASTR



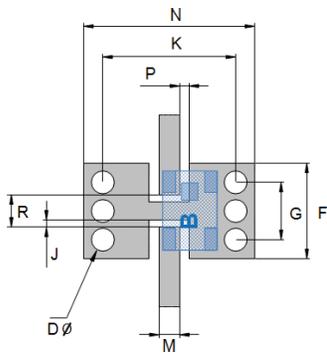
#### TYPICAL ELECTRICAL PERFORMANCE

Description	Value
Center frequency	7250 MHz
Impedance	50 Ohm
I. loss 6625-7875 MHz	-1.5 dB
Return loss in-band	-12 dB
Rejection in [DC – 5400 MHz]	-25 dB
Rejection in [10000 – 15000 MHz]	-25 dB
Power handling (CW)	5 Watt

[Click here to return to main table](#)



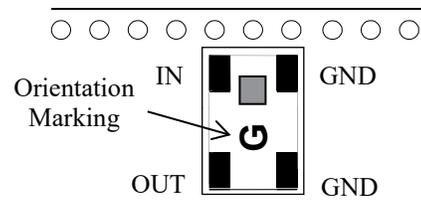
#### RECOMMENDED PAD LAYOUT: (mm)



F	2.5±0.05
G	1.5±0.05
J	0.19±0.05
K	3.48±0.05
M	0.54±0.25
N	4.48±0.05
P	0.25±0.05
R	0.85±0.05
D	0.6±0.05

The recommended distance to the PCB Ground Plane is 0.254mm (0.010")  
 \*\* PCB: Taconic Orcer RF-35P

#### TERMINALS AND LAYOUT: (Top View)



\*The recommended distance to the ground plane is 0.254mm (0.01")  
 \*\* PCB : Taconic Orcer RF-35P

**EVB P/N: 544-7066**