

Air Trimmers Product Guide

Part Number	Capacitance Range (pF)	Number of Turns	Working Voltage (VDC)	Withstanding Voltage (VDC)	Tuning Torque (oz.in)	Q @ 100 HHZ
5200						
5201	0.8 to 10pF	>6	250	500	1 - 5	>5000
5202						
5302	1 to 10pF	>10	500	1000	1 - 6	>2000
5400						
5401	1 to 14pF	>6	250	500	1 - 5	>3000
5402						
5451	1 to 16pF	>6	250		1 - 5	>3000
5453	1.5 to 16pF					
5500						
5501	1 to 20pF	>12	250		1 - 5	>1500
5502						
5600						
5601	1 to 30pF	>20	250		1 - 5	>800
5602						
5700						
5701	0.6 to 6pF	>7	250		0.4 - 4	>10000
5702						
5750						
5751	0.8 to 10pF	>8	250		0.4 - 4	>7500
5752						
5753	1 to 10pF				500	
5800						
5801	0.35 to 3.5pF	>9	250		0.3 - 3	>10000
5802						
5850						
5851	0.5 to 5pF	>12	250		0.3 - 3	>7500
5852						
5853	0.6 to 5pF					
8050	0.7 to 6pF	>7	250		0.4 - 4	>10000
8051	0.6 to 3.5pF	>10			0.3 - 3	
8052	1 to 10pF	>6				>5000
8053	1.5 to 14pF	>6			1 - 5	>3000
8054	1.5 to 20pF	>12				>1500
8090	1 to 10pF					
8091		>6	250		1 - 5	>2000
8092	1.5 to 14pF					
8093						



Air Trimmers

FIGURE 1

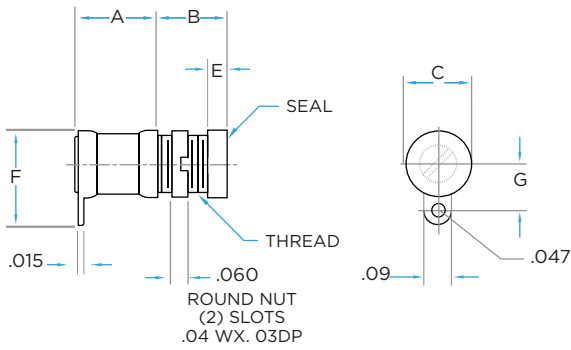
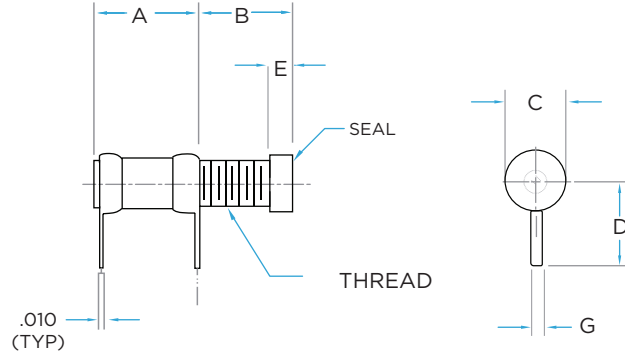


FIGURE 2



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions								Figure
			A	B	C	D	E	F	G	THREAD	
5801	0.35 to 3.5	>10000	0.28	0.215	.160/.150	0.22	0.06	-	0.03	.120-80	2
5851	0.5 to 5.0	>7500	0.28	0.245	.160/.150	0.22	0.06	-	0.03	.120-80	2
5700	0.6 to 6.0	>10000	0.27	0.21	.235/.215	-	0.06	0.32	0.16	190-64	1
5750	0.8 to 10.0	>7500	0.27	0.23	.235/.215	-	0.06	0.32	0.16	190-64	1

Dimensions (inches)

FIGURE 3

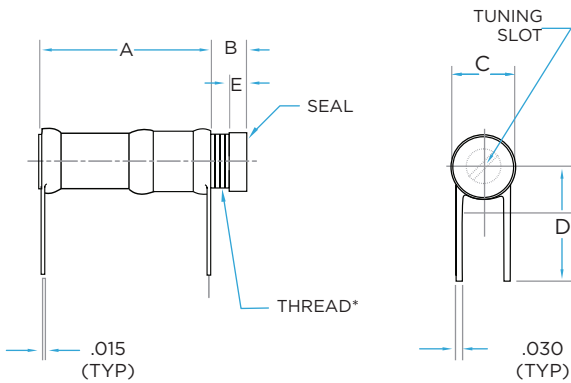
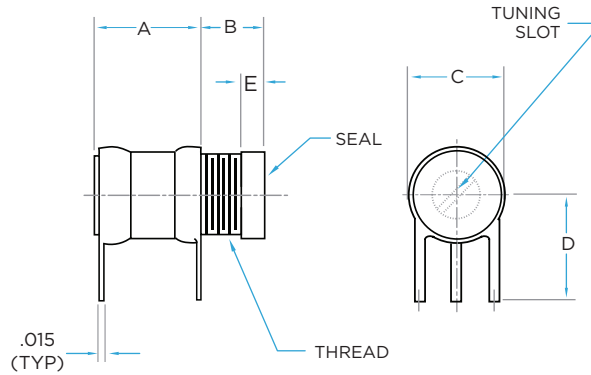


FIGURE 4



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions						Figure
			A	B	C	D	E	THREAD	
5701	0.6 to 6.0	>10000	0.29	0.19	.235/.215	0.25	0.06	.190-64	4
5201	0.8 to 10.0	>5000	0.32	0.19	.295/.275	0.31	0.08	.234-64	4
5751		>7500	0.29	0.22	.235/.215	0.25	0.06	.190-64	4
5401	1.0 to 14.0	>3000	0.32	0.19	.310/.290	0.50	0.08	.234-64	4
5451	1.0 to 16.0	>3000	0.32	0.19	.295/.275	0.31	0.08	.234-64	4
5501	1.0 to 20.0	>1500	0.58	0.16	.295/.275	0.50	0.08	.234-64	4
5601	1.0 to 30.0	>800	0.76	0.16	.295/.275	0.50	0.08	.234-64	3

Dimensions (inches)

Note: All Air Trimmers are available with or without hardware. Hardware may be purchased separately

Air Trimmers

FIGURE 1

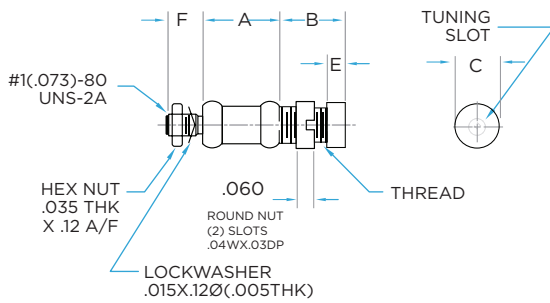
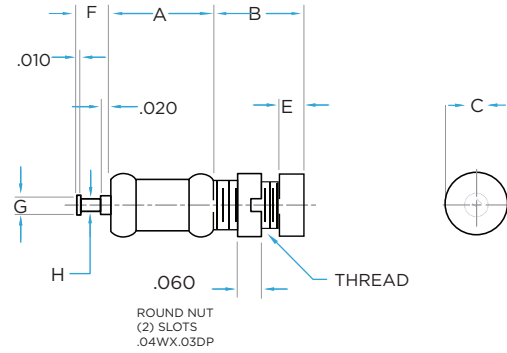


FIGURE 2



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions									Figure			
			A	B	C	D	E	F	G	H	THREAD				
5800	0.35 to 3.5	>10000	0.27	0.23	.160/.150	-	0.06	0.125	-	-	.120-80	1			
5802					.160/.150	-			0.08	0.045		0.030	2		
5850	0.5 to 5.0	>7500		0.26	.160/.150	-		0.125	-	-		0.08	0.045	0.030	1
5852					.160/.150	-			0.08	0.045					0.030
5702	0.6 to 6.0	>10000		0.21	.235/.215	-		0.08	0.06	0.040		.190-64	2		
5752	0.8 to 10.0	>7500			0.23	.235/.215		-	0.08	0.06			0.040	2	

Dimensions (inches)

FIGURE 3

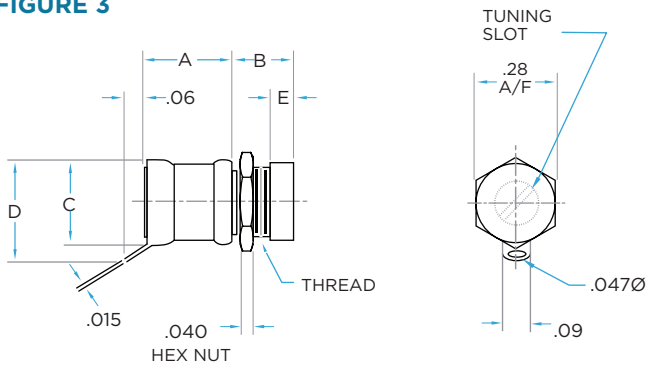
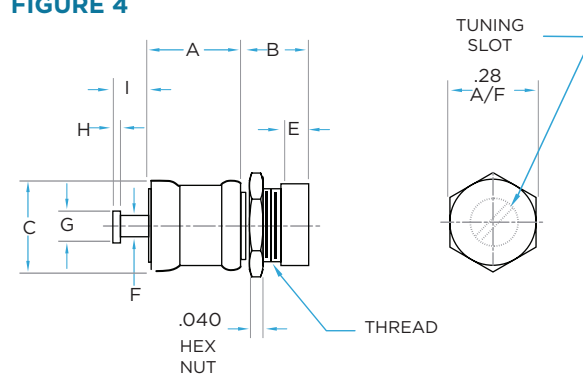


FIGURE 4



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions									Figure	
			A	B	C	D	E	F	G	H	I		THREAD
5200	0.8 to 10.0	>5000	0.30	0.21	0.295/0.275	0.35	0.08	-	-	-	-	.234-64	3
5202			0.29			-		0.06	0.09	0.02	0.11		4
5302	1.0 to 10.0	>2000	0.42	0.30	0.375/0.355	-	0.11	0.09	0.125	0.02	0.11	.312-64	4
5400	1.0 to 14.0	>3000	0.30	0.21	0.295/0.275	0.35	0.08	-	-	-	-	.234-64	3
5402			0.29			-		0.06	0.09	0.02	0.11		4
5500	1.0 to 20.0	>1500	0.49	0.25	0.295/0.275	0.35	0.08	-	-	-	-	.234-64	3
5502			-			0.06		0.09	0.02	0.11	4		
5600	1.0 to 30.0	>800	0.68	0.25	0.295/0.275	0.35	0.08	-	-	-	-	.234-64	3
5602			-			0.06		0.09	0.02	0.11	4		

Dimensions (inches)

Note: All Air Trimmers are available with or without hardware. Hardware may be purchased separately.

Air Trimmers

FIGURE 1

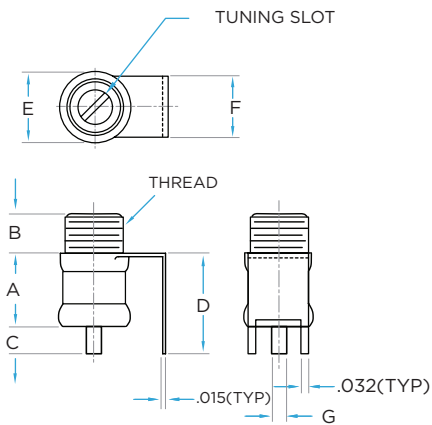


FIGURE 2

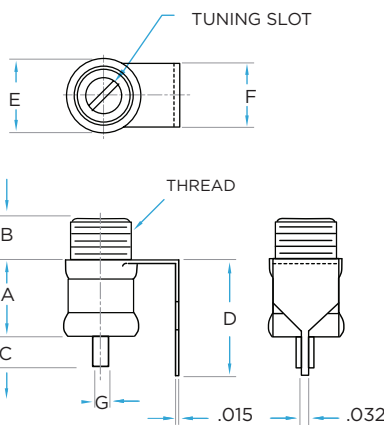


FIGURE 3

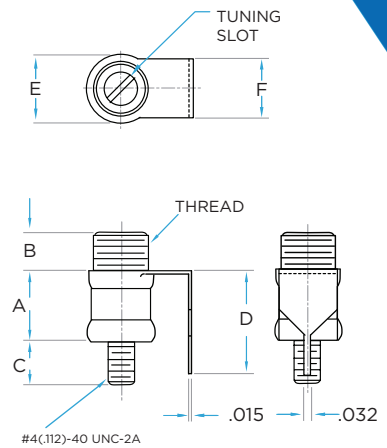


FIGURE 4

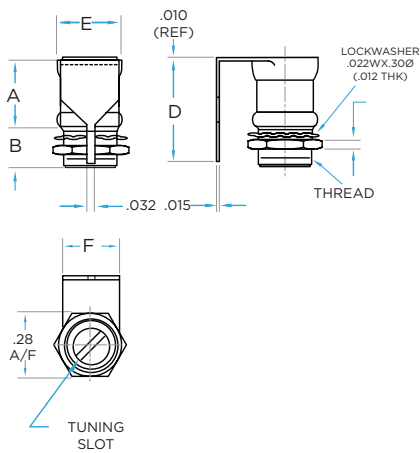


FIGURE 5

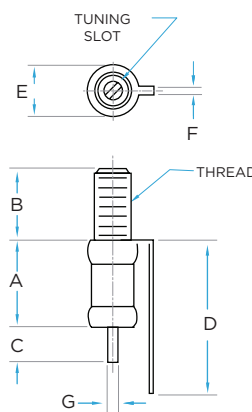
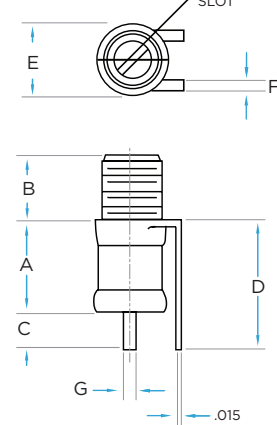


FIGURE 6



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions								Figure
			A	B	C	D	E	F	G	THREAD	
8051	0.6 to 3.5	>10000	0.28	0.195	0.11	0.48	.160/.150	0.02	0.03	.120-80	5
5853	0.6 to 5.0	>7500	0.28	0.225	0.11	0.48	.160/.150	0.02	0.03	.120-80	5
8050	0.7 to 6.0	>10000	0.29	0.17	0.11	0.40	.235/.215	0.03	0.04	.190-64	5
5753	1.0 to 10.0	>7500	0.29	0.20	0.11	0.40	.235/.215	0.03	0.04	.190-64	6
8052	1.0 to 10.0	>5000	0.30	0.16	0.11	0.40	.295/.275	0.04	0.062	.234-64	5
8090	1.0 to 10.0	>2000	0.30	0.16	0.188	0.44	.295/.275	0.25	-	.234-64	3
8053	1.5 to 14.0	>3000	0.30	0.16	0.11	0.40	.295/.275	0.24	0.062	.234-64	5
8091	1.5 to 14.0	>2000	0.30	0.175	-	0.44	.295/.275	0.25	-	.234-64	4
8092	1.5 to 14.0	>2000	0.30	0.16	0.11	0.41	.295/.275	0.25	0.062	.234-64	1
8093	1.5 to 14.0	>2000	0.30	0.16	0.11	0.44	.295/.275	0.25	0.062	.234-64	2
5453	1.5 to 16.0	>3000	0.30	0.19	0.11	0.43	.295/.275	0.03	0.062	.234-64	6
8054	1.5 to 20.0	>1500	0.58	0.125	0.11	0.70	.295/.275	0.04	0.062	.234-64	5

Dimensions (inches)

Note: All Air Trimmers are available with or without hardware. Hardware may be purchased separately.

Air Dielectric Variable Trimmers

DESCRIPTION

- Concentric tubular design
- Torque mechanism insures low ESR and low dynamic noise
- Available in PC, panel mount, vertical mount and surface mount terminations
- High Reliability testing available

CHARACTERISTICS

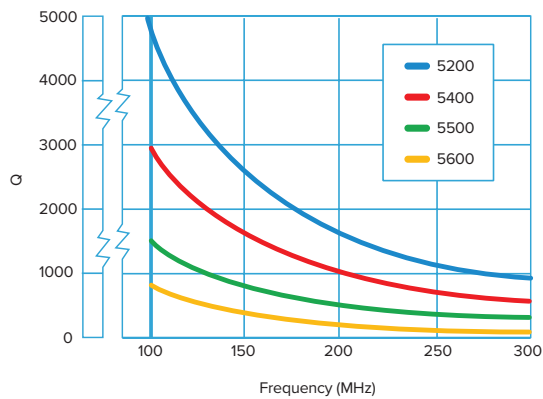
- Rated voltage: 250 VDC (5300 series 500 VDC)
- Insulation resistance: $>10^6 \text{M}\Omega$ @ 500 VDC
- Contact resistance: $<.01 \Omega$
- Operating temperature: -65°C to $+125^\circ\text{C}$
- Vibration: 60g, 10-2000 Hz
- Shock: 1500g, .5 milliseconds
- 574°F solder used in construction

APPLICATIONS

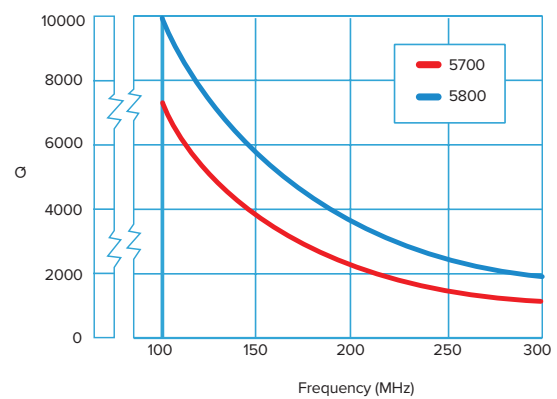
- RF amplifiers and oscillators
- Impedance matching
- Interstage coupling
- Filter tuning
- Crystal trimming

Note: The use of a Knowles tuning tool is recommended. Improper screwdriver size will cause internal thread damage.

**TYPICAL PERFORMANCE CURVES
5200/5400/5500/5600 SERIES**



**TYPICAL PERFORMANCE CURVES
5700/5800 SERIES**



TUNING TOOLS

Trimmer Series	Diameter	Johanson Part Number
5200	.130	8777
5300		
5400		
5500		
5600		8764
5700		.078
5800		