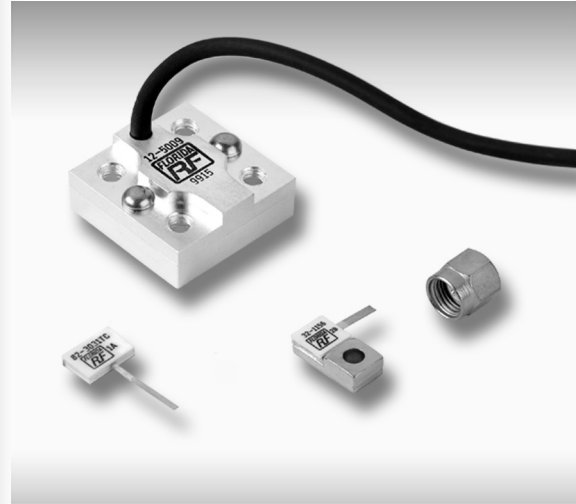


**Features**

- Lead Free, RoHS Compliant Option Available
- Resistance 50 Ohms  $\pm 5\%$
- Power Rating 5 to 800 Watts
- Frequency Range from DC to 18 GHz
- Substrates in BeO, AlN or Alumina
- Package Styles Available – Tab & Cover, Flange, Stripline Flange, Coaxial and CRT
- S-parameter Data Available
- Non-50 Ohm Termination Values Available
- Conforms to Many Military Standards
- Tuned Circuit Design
- Custom Tab Forming

**Applications**

- Broadcast (TV and Radio)
- High Power Amplifier
- High Power Filters
- Instrumentation
- Isolators
- Military
- Remote Termination
- Satellite Communication
- Splitters/Combiners



*Florida RF Labs® is a premiere manufacturer of tab & cover, flanged, stripline flange, and coaxial remote terminations. Our tuned circuit design delivers the lowest VSWR while extending the frequency range. The terminations are capable of power ratings up to 800 watts.*

**Table of Contents**

General Specifications .....	4-5
Tab & Cover (Flangeless) .....	6-7
Flange .....	8-13
Special Packaging	
Stripline Flange .....	14-17
Cable Remote Termination (CRT) .....	18-19
Coaxial .....	20-21
Coaxial Switch .....	22-23

**Tab & Cover**

Standard Resistance .....	50 ±5%
Operating Temperature .....	-55 to 150°C
Power Rating .....	100% @ 100°C Derates to 0% @ 150°C
Peak Power .....	Typically 10 Times the Max Power Rating with 1% Duty Cycle and 100 Microsecond Pulse Width
Resistor .....	Nichrome
Substrates .....	BeO, AlN, or Alumina
Environment .....	Meets Applicable Sections of MIL-E-5400 and MIL-PRF-55342

**Flange**

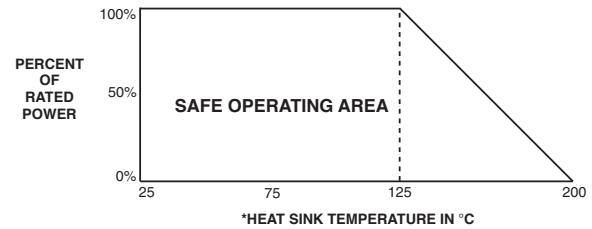
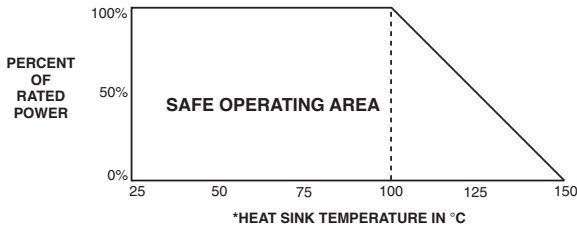
Standard Resistance .....	50 ±5%
Operating Temperature .....	-55 to 150°C
Power Rating .....	100% @ 100°C Derates to 0% @ 150°C
Peak Power .....	Typically 10 Times the Max Power Rating with 1% Duty Cycle and 100 Microsecond Pulse Width
Resistor .....	Nichrome
Substrates .....	BeO, AlN, or Alumina
Environment .....	Meets Applicable Sections of MIL-E-5400 and MIL-PRF-55342

**Coaxial Remote**

Standard Resistance .....	50 ±5%
Operating Temperature .....	-55 to 150°C
Power Rating .....	100% @ 100°C Derates to 0% @ 150°C
Peak Power .....	Typically 10 Times the Max Power Rating with 1% Duty Cycle and 100 Microsecond Pulse Width
Resistor .....	Nichrome
Substrates .....	BeO or AlN
Environment .....	Meets Applicable Sections of MIL-E-5400 and MIL-PRF-55342
Body .....	Aluminum
Cable .....	Braided Jacket, Hand Formable

Power Rating and Derating

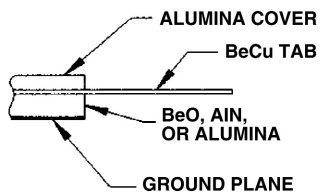
Alternative Derating Available Upon Request



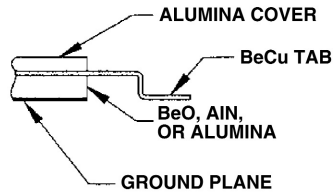
\*The heat sink is defined as the surface that the Component is attached to, *ie.* chassis or printed circuit board.

Tab Options

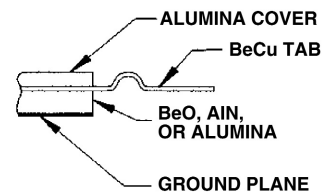
- Standard Straight Tab



- Strain Relief



- Strain Relief



Note: For strain relief options, contact the factory.



Power (W) <sup>1</sup> Max	Substrate Type	Frequency (GHz)	VSWR (Max)	Dimensions (in.)					Part Number
				L	W	H	I*	Tw	
10	AlN	2	1.18	.200	.100	.085	.125	.030	82-7166TC
10	AlN	4	1.35	.200	.100	.085	.250	.100	82-7017TC
10	BeO	4	1.35	.200	.100	.090	.250	.040	82-3001TC
10	BeO	10	1.40	.200	.100	.080	.250	.040	82-3033TC
10	BeO	18	1.35	.100	.200	.090	.125	.040	82-3045TC
30	AlN	2.5	1.20	.200	.100	.085	.125	.040	82-7004TC
30	BeO	1	1.50	.230	.350	.085	.250	.040	82-3019TC
30	BeO	4	1.25	.250	.250	.085	.250	.060	82-3005TC
40	AlN	2	1.20	.250	.250	.085	.250	.030	82-7030TC
40	BeO	6	1.30	.230	.350	.085	.250	.040	82-3030TC
40	BeO	6	1.20	.250	.250	.085	.250	.040	82-3039TC
50	BeO	2	1.35	.250	.250	.085	.250	.060	82-3003TC
60	AlN	4	1.20	.250	.375	.085	.276	.030	82-7150TC
60	BeO	6	1.20	.250	.375	.085	.250	.060	82-3032TC
100	AlN	4	1.20	.250	.250	.085	.250	.030	82-7163TC
100	BeO	6	1.30	.230	.350	.085	.250	.040	82-3038TC
120	AlN	2	1.10	.230	.350	.085	.150	.030	82-7176TC
120	BeO	2	1.10	.230	.350	.085	.250	.040	82-3031TC
125	AlN	2.7	1.10	.250	.250	.085	.250	.060	82-7013TC
150	AlN	2	1.15	.375	.250	.085	.125	.030	82-7172TC
150	BeO	1	1.35	.250	.375	.085	.125	.120	82-3006TC
150	BeO	4	1.35	.375	.250	.085	.250	.040	82-3023TC
150	BeO	4	1.35	.350	.230	.085	.250	.040	82-3051TC
250	AlN	2.7	1.30	.375	.375	.085	.125	.120	82-7137TC
250	BeO	1	1.35	.375	.375	.085	.250	.120	82-3008TC
250	BeO	2	1.15	.375	.375	.085	.125	.120	82-3029TC
500	BeO	1.5	1.35	.500	.500	.080	.250	.060	82-3040TC

For lead free options, replace the initial dash (-) with either "A" or "B" (see page 6).

<sup>1</sup> Peak power is typically 10 times the max power rating with a 1% duty cycle and 100 microsecond pulse width.

Please call the factory for your specific application.

\* I dimension is minimum length.



High Power Flange Mount Components offer excellent performance and the convenience of bolt-in installation. The flanged mounted devices offer power ratings up to 800 watts and frequency ranges from DC to 18 GHz. The devices are available in single hole, double hole and four hole flange configurations. Optional lead forming available on designs.

**General Specifications**

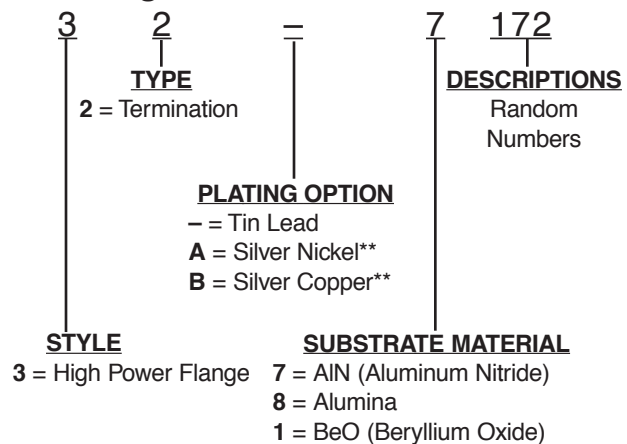
- Standard Resistance . . . . . 50 Ohms ±5%
- Resistance Range . . . . . 10 to 250 Ohms
- Power Rating . . . . . 10 to 800 Watts
- Frequency . . . . . DC to 18 GHz
- Power Rating . . . . . 100% @ 100°C\*  
Derates 0% @ 150°C
- Operating Temperature . . . . . -55 to 150°C

**Material Specifications**

- Substrates . . . . . BeO, AlN or Alumina
- Resistor . . . . . Nichrome
- Tab Contact . . . . . Beryllium Copper, Tin Plated  
per ASTM B545
- Cover . . . . . Alumina
- Mounting Flange . . . . . Copper, Nickel plated  
per SAE AMS-QQ-N-290

\* 100°C is referenced at the heat sink.

**Ordering Information**



\*\* Lead free options

Power (W) <sup>1</sup> Max	Frequency (GHz)	VSWR (Max)	Substrate Type	Dimensions (in.)				Tw	Part Number	Figure
				L	W	H	I			
10	2	1.10	AlN	.200	.300	.150	.125	.030	32-7166	1L
10	2	1.10	AlN	.200	.300	.150	.125	.030	32-7006	1R
10	4	1.35	BeO	.200	.300	.150	.125	.040	32-1006	1L
10	4	1.35	BeO	.200	.300	.150	.125	.040	32-1041	1R
10	4	1.25	AlN	.300	.200	.150	.125	.040	32-7017	1C
10	6	1.25	BeO	.300	.200	.150	.125	.040	32-1198	1C
10	6.4	1.35	BeO	.200	.300	.150	.125	.040	32-1042	1L
10	6.4	1.25	BeO	.200	.500	.150	.125	.040	32-1045	3
10	10	1.40	BeO	.200	.300	.140	.125	.040	32-1068	1L
10	10	1.40	BeO	.200	.300	.140	.125	.040	32-1111	1R
10	10	1.40	BeO	.200	.500	.150	.125	.040	32-1069	3
10	18	1.35	BeO	.300	.200	.150	.125	.040	32-1137	1C
20	2	1.35	BeO	.250	.515	.170	.250	.060	32-1001	2L
20	2	1.35	BeO	.250	.515	.170	.250	.060	32-1031	2R
20	2	1.35	BeO	.515	.250	.170	.250	.060	32-1014	2C
20	2	1.20	BeO	.200	.300	.150	.125	.040	32-1177	1R
30	4	1.25	BeO	.250	.515	.150	.250	.060	32-1050	2L
30	4	1.25	BeO	.250	.515	.150	.250	.060	32-1051	2R
40	6	1.30	BeO	.230	.800	.150	.150	.040	32-1007	4
40	8.4	1.30	BeO	.250	.515	.120	.250	.040	32-1046	2L
40	8.4	1.30	BeO	.250	.515	.120	.250	.040	32-1047	2R
40	8.4	1.30	BeO	.515	.250	.120	.250	.040	32-1070	2C
50	12.75-14.5	1.35	BeO	.250	.515	.150	.250	.040	32-1200	2L
60	4	1.25	AlN	.250	.515	.150	.250	.030	32-7008	2L
60	4	1.20	AlN	.255	.787	.140	.276	.030	32-7150	5
60	6	1.20	BeO	.255	.787	.140	.276	.060	32-1036	5
60	6	1.20	BeO	.250	.515	.150	.250	.040	32-1121	2L
60	6	1.20	BeO	.250	.515	.150	.250	.040	32-1117	2R
60	6	1.20	BeO	.515	.250	.150	.250	.040	32-1122	2C
75	1.5	1.40	BeO	.255	.820	.235	.125	.250	32-1002	6

Table continued on next page.

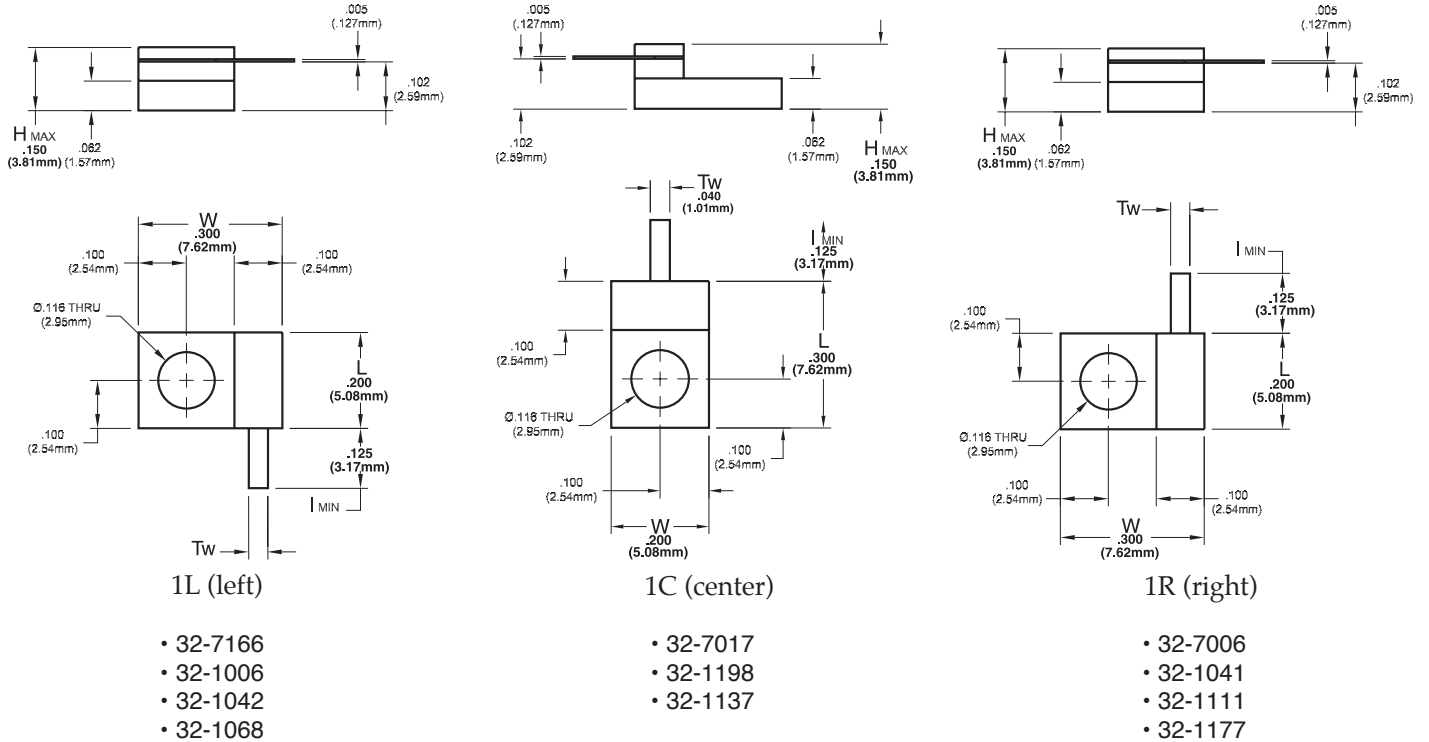
Table continued from previous page.

Power (W) <sup>1</sup> Max	Frequency (GHz)	VSWR (Max)	Substrate Type	Dimensions (in.)				Tw	Part Number	Figure
				L	W	H	I			
100	4	1.20	AlN	.250	.515	.150	.250	.030	32-7163	2L
100	4	1.20	AlN	.250	.515	.150	.250	.030	32-7164	2R
100	4	1.20	AlN	.515	.250	.150	.250	.030	32-7165	2C
100	6	1.30	BeO	.230	.800	.150	.150	.040	32-1055	4
100	6	1.30	BeO	.250	.515	.140	.250	.060	32-1156	2L
100	6	1.30	BeO	.250	.515	.140	.250	.060	32-1158	2R
100	6	1.30	BeO	.515	.250	.140	.250	.060	32-1157	2C
120	2	1.10	BeO	.250	.515	.140	.250	.060	32-1160	2L
120	2	1.10	BeO	.250	.515	.140	.250	.060	32-1162	2R
120	2	1.10	BeO	.515	.250	.140	.250	.060	32-1161	2C
120	2	1.10	BeO	.230	.800	.150	.150	.040	32-1058	4
120	2	1.20	AlN	.230	.800	.150	.150	.030	32-7187	4
125	3	1.20	AlN	.515	.250	.140	.250	.060	32-7012	2C
150	2	1.15	AlN	.375	.870	.135	.125	.030	32-7172	7
150	4	1.35	BeO	.375	.870	.150	.125	.040	32-1026	7
200	2	1.20	BeO	.230	.800	.150	.125	.040	32-1196	4
250	2	1.15	BeO	.375	.975	.210	.125	.120	32-1037	8
250	2	1.40	AlN	.375	.975	.210	.125	.040	32-7001	8
250	2.7	1.30	AlN	.375	.975	.210	.125	.120	32-7037	8
400	1	1.20	BeO	1.04	1.90	.250	.500	.060	32-1017	10
500	0.5	1.35	BeO	.500	1.25	.215	.250	.060	32-1123	9
800	0.5	1.50	BeO	1.04	1.90	.245	.125	.250	32-1005	10
800	0.5	1.30	BeO	1.04	1.90	.245	.125	.250	32-1199	10

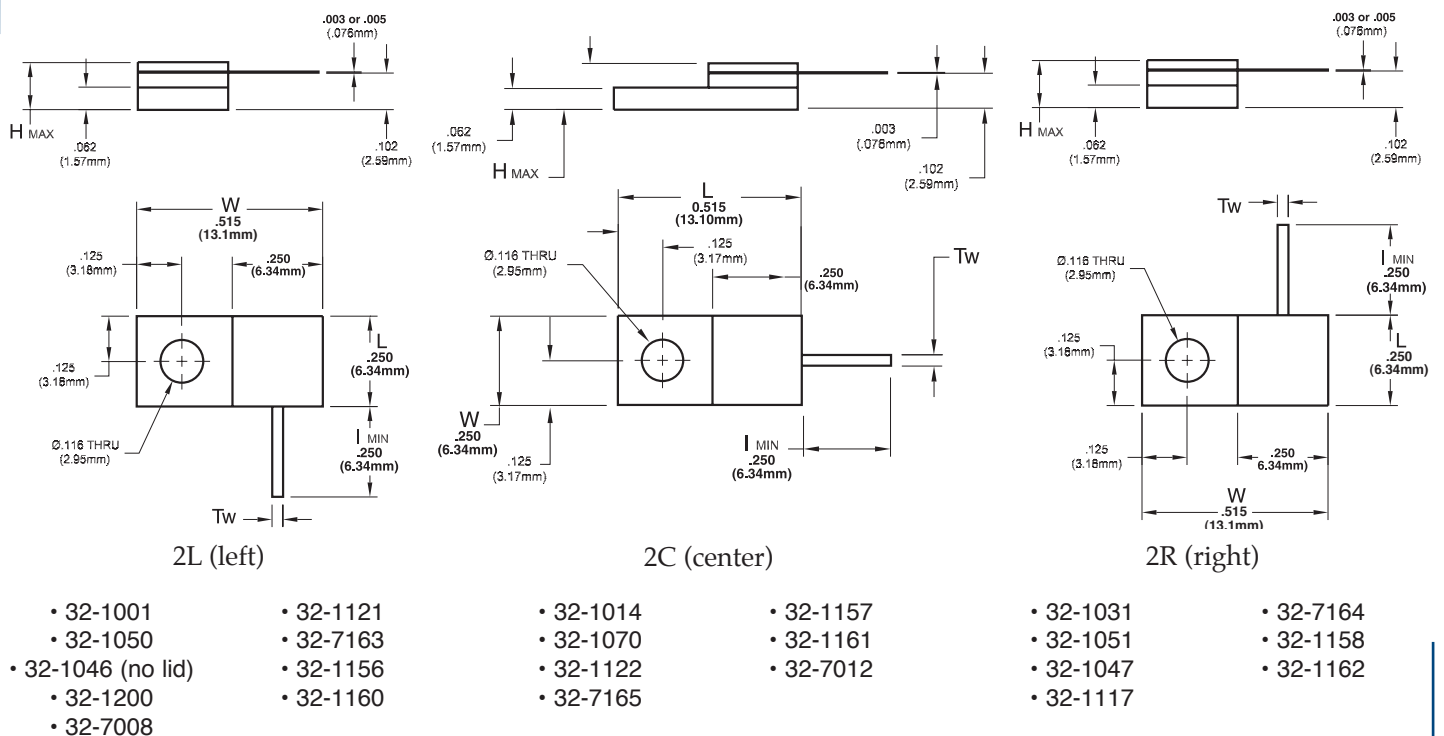
For lead free options, replace the initial dash (-) with either "A" or "B" (see page 8).

<sup>1</sup> Peak power is typically 10 times the max power rating with a 1% duty cycle and 100 microsecond pulse width. Please call the factory for your specific application.

## Outline Drawings for Flange Mount Terminations Table (see pages 9 & 10)

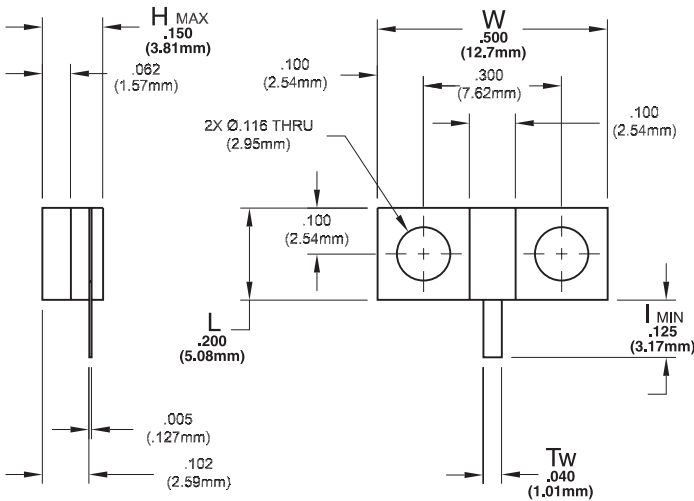


**Figure 1L, 1C & 1R**



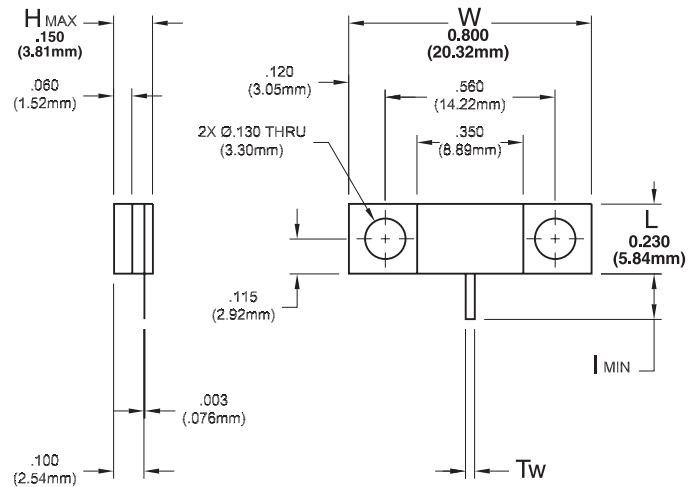
**Figure 2L, 2C & 2R**

Outline Drawings for Flange Mount Terminations Table (see pages 9 & 10)



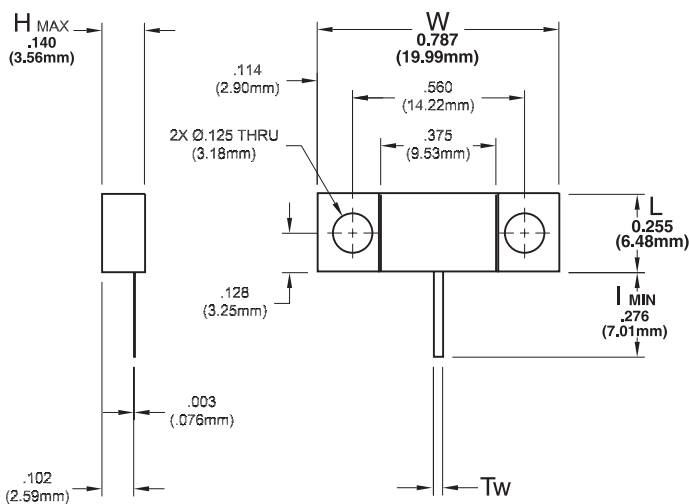
- 32-1045
- 32-1069

Figure 3



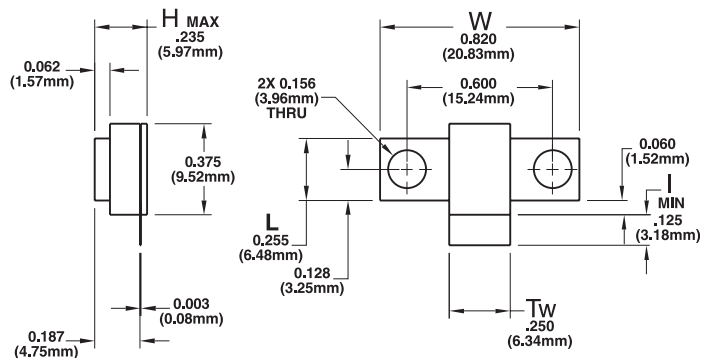
- 32-1007
- 32-1055
- 32-1058
- 32-7187
- 32-1196

Figure 4



- 32-7150
- 32-1036

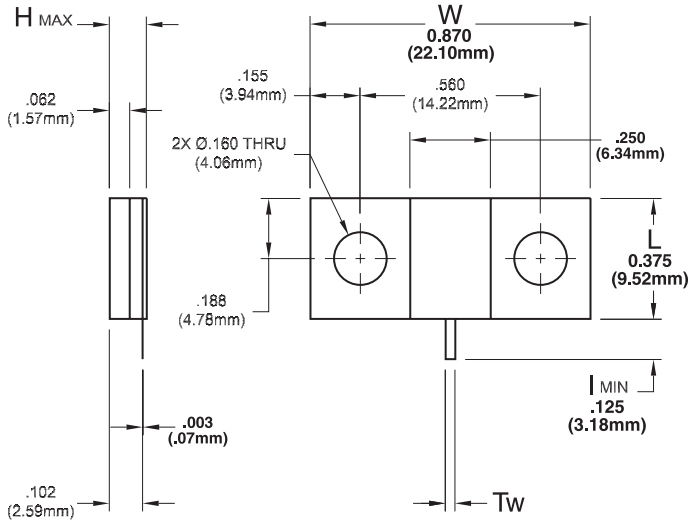
Figure 5



- 32-1002

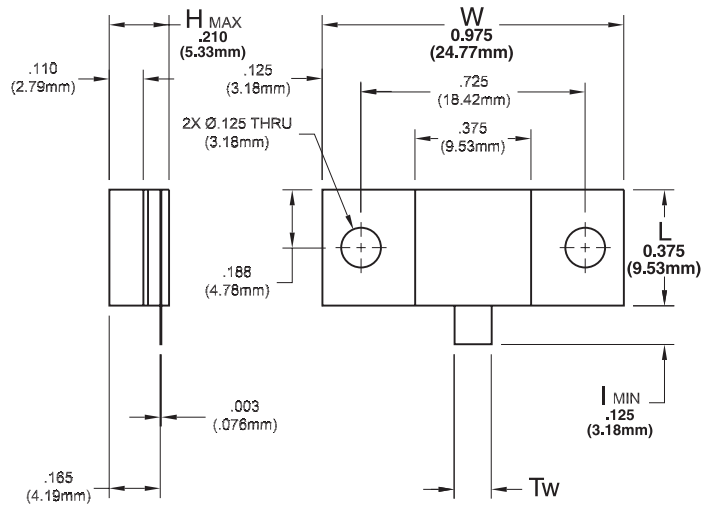
Figure 6

Outline Drawings for Flange Mount Terminations Table (see pages 9 & 10)



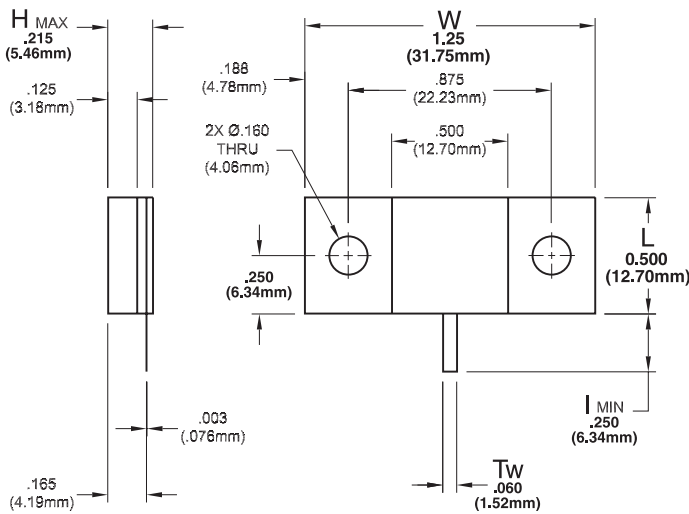
- 32-7172
- 32-1026

Figure 7



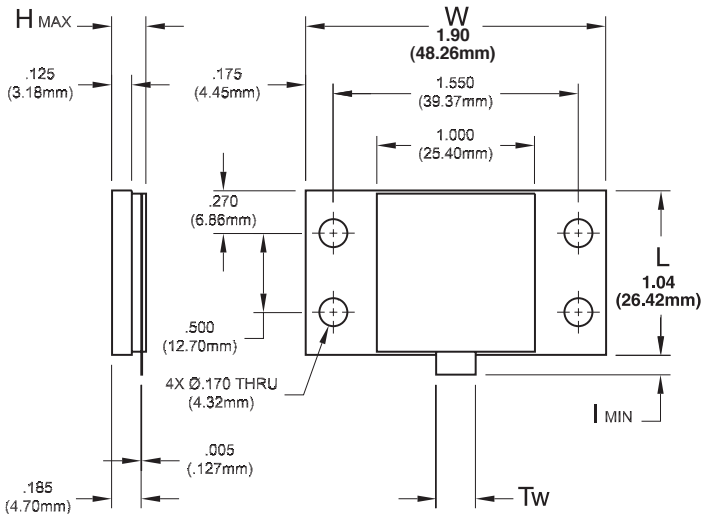
- 32-1037
- 32-7001
- 32-7037

Figure 8



- 32-1123

Figure 9



- 32-1017
- 32-1005
- 32-1199

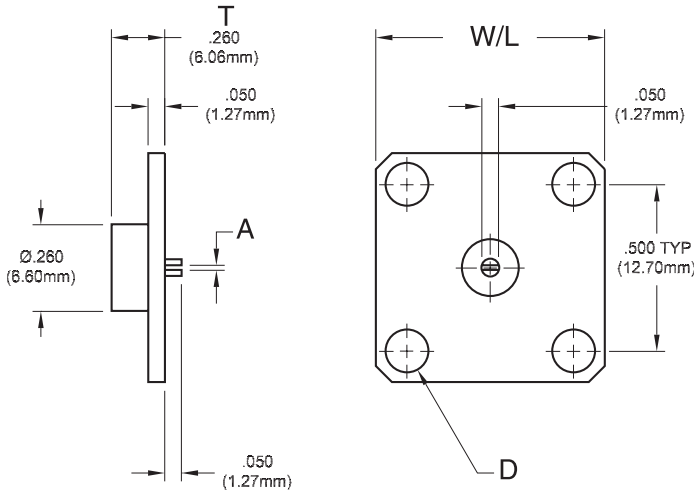
Figure 10



Power (W) <sup>1</sup> Max	Substrate Type	Frequency (GHz)	VSWR	Dimensions (in.)						Part Number	Fig	
				L	W	T	Connector	A	D			
1	Alumina	18	1.20	.500	.500	.260	SMA Tab	0.055	.103	42-0005	2	
								0.100				42-0006
								0.030				
1	Alumina	18	1.20	.500	.500	.260	SMA Slot	0.020	.103	42-0002	1	
								0.014				42-0003
								0.030				
1	Alumina	18	1.20	.500	.500	.350	SMA Socket	0	.103	42-0042	7	
1	Alumina	18	1.20	.687	.687	.260	TNC Slot	0.030	.125	42-0013	1	
								0.020				42-0018
								0.014				
1	Alumina	18	1.20	1.00	1.00	.260	Type N Slot	0.020	.125	42-0011	1	
								0.030				42-0026
								0.014				
1	Alumina	26.5	1.30	.500	.500	.260	SMA Tab	0.050	.103	42-0054	2	
1	Alumina	26.5	1.30	.500	.500	.260	SMA Slot	0.010	.103	42-0059	1	
3	Alumina	18	1.25	1.00	1.00	.260	Type N Pin	0.036	.103	42-1045	8	
10	BeO	18	1.30	.500	.500	.260	SMA Tab	0.030	.103	42-1003	2	
								0.055				42-1008
								0.100				
10	BeO	18	1.30	.500	.500	.260	SMA Slot	0.030	.103	42-1005	1	
								0.014				42-1006
								0.020				
15	BeO	12.4	1.30	.500	.500	.228	SMA Slot	0.030	.103	42-1011	5	
								0.020				42-1017
								0.014				
15	BeO	12.4	1.30	.500	.500	.228	SMA Tab	0.030	.103	42-1031	6	
								0.055				42-1032
								0.100				
15	BeO	18	1.30	.375	.375	.172	SSMA Slot	0.014	.076	42-1069	3	
20	BeO	18	1.30	.500	.500	.172	SMA Slot	0.014	.108	42-1056	5	
20	BeO	18	1.30	.375	.375	.172	SSMA Tab	0.053	.076	42-1057	4	
20	BeO	18	1.30	.500	.500	.172	SMA Tab	0.055	.108	42-1058	6	
30	BeO	18	1.35	.500	.500	.250	SMA Slot	0.050	.103	42-1046	5	
30	BeO	18	1.35	.500	.500	.250	SMA Tab	0.100	.103	42-1047	6	

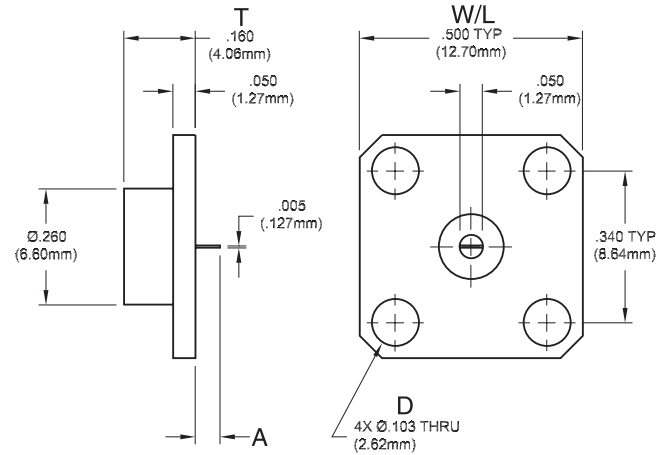
<sup>1</sup> Peak power is typically 10 times the max power rating with a 1% duty cycle and 100 microsecond pulse width. Please call the factory for your specific application.

Outline Drawings for Stripline Flange Mount Terminations Table (see page 15)



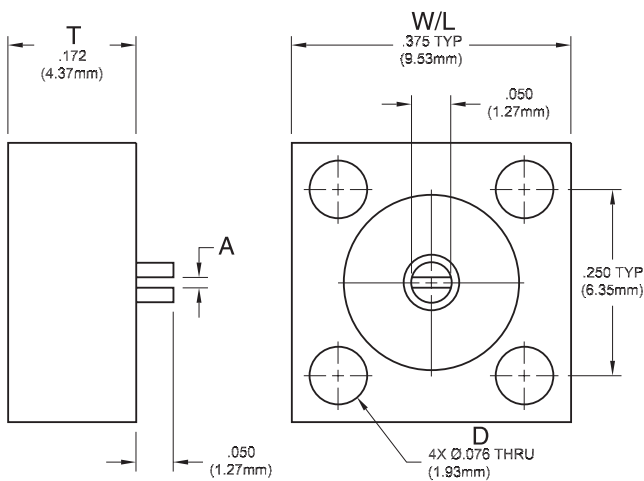
- 42-0002
- 42-0003
- 42-0004
- 42-0013
- 42-0018
- 42-0029
- 42-0011
- 42-0026
- 42-0033
- 42-0059
- 42-1005
- 42-1006
- 42-1007

Figure 1 – Slot Contact



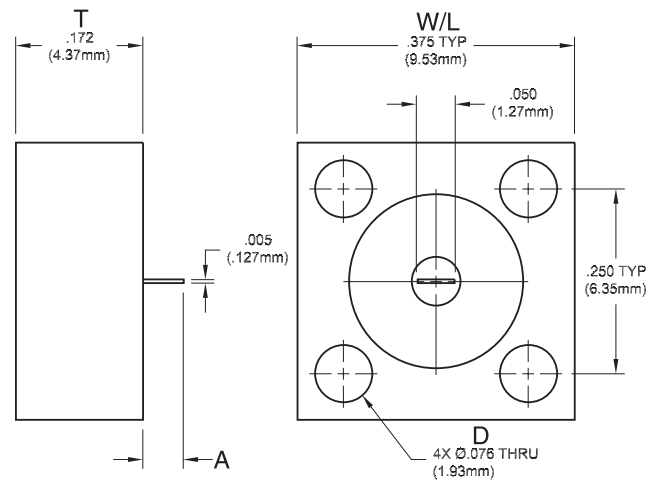
- 42-0005
- 42-0006
- 42-0041
- 42-0054
- 42-1003
- 42-1008
- 42-1027

Figure 2 – SMA Flange-Tab Contact



- 42-1069

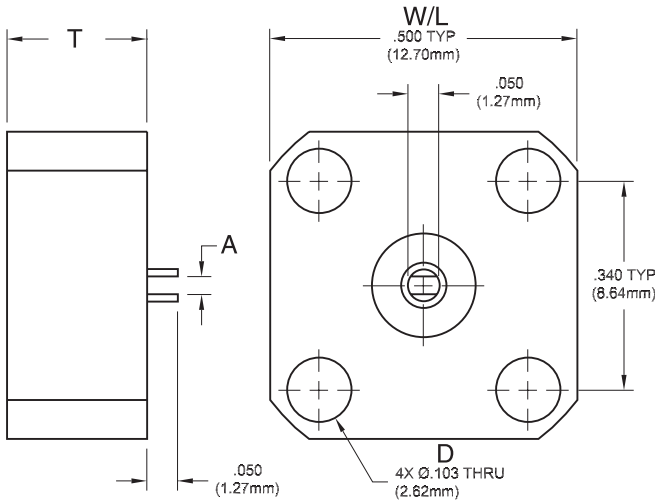
Figure 3 – SSMA Slot Contact



- 42-1057

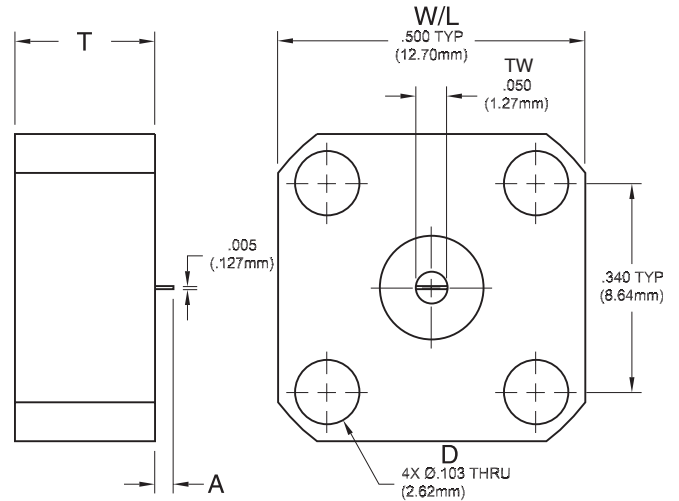
Figure 4 – SSMA Flange-Tab Contact

Outline Drawings for Stripline Flange Mount Terminations Table (see page 15)



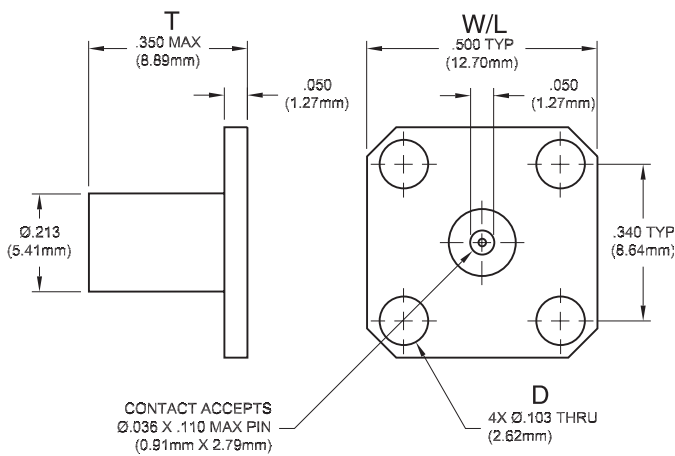
- 42-1011
- 42-1017
- 42-1034
- 42-1056
- 42-1046

Figure 5 – SMA Flange-Slot Contact



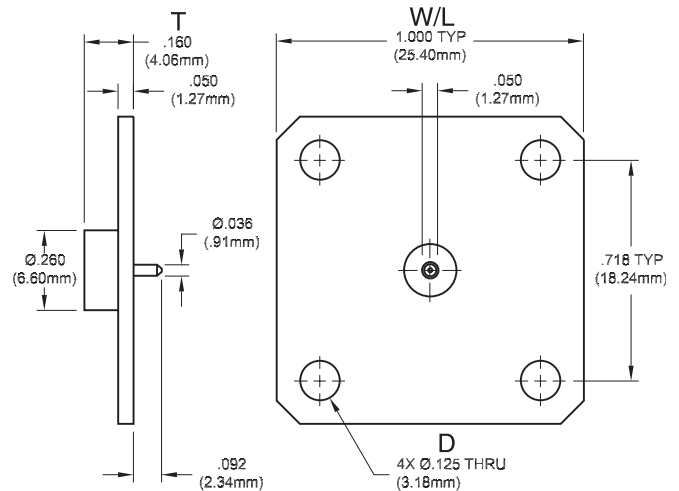
- 42-1031
- 42-1032
- 42-1033
- 42-1058
- 42-1047 (TW = .060)

Figure 6 – SMA Flange-Tab Contact



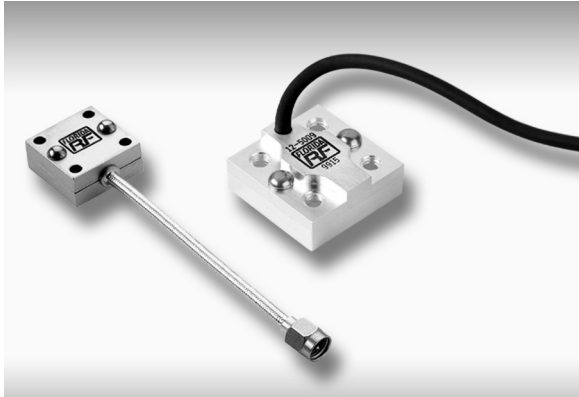
- 42-0042

Figure 7 – SMA Flange-Socket



- 42-1045

Figure 8 – Type N Flange-Pin Contact



For applications where a high power termination is required to be remotely located, the 12-5000 series of Coaxial Remote Terminations feature integral coaxial cable inputs. They offer ultra low VSWR. These devices decrease the number of interconnections in your system at reduced cost over a discrete cable and termination or attenuator approach.

### General Specifications

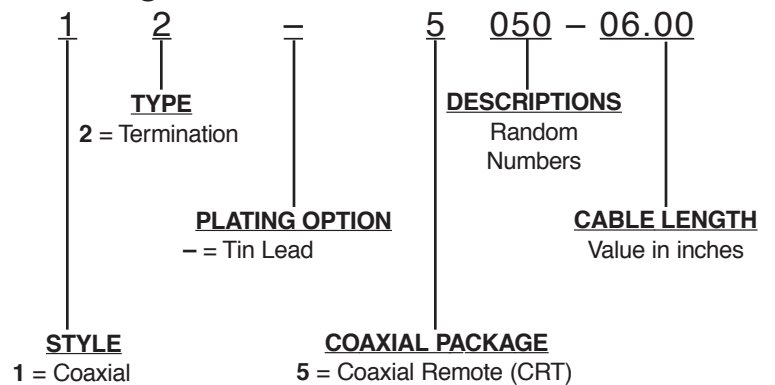
- Standard Resistance . . . . . 50 Ohms ± 5%
- Cable Length . . . . . 4 to 28 inches
- Power Rating . . . . . 20 to 500 Watts
- Frequency . . . . . DC to 6 GHz
- Power Derating . . . . . 100% @ 100°C\*\*\*  
Derates to 0% @ 150°C
- Standard Connectors . . . . . SMA and Type N
- Operating Temperature . . . . . -55 to 150°C

### Material Specifications

- Substrates . . . . . BeO or AlN
- Resistive Element . . . . . Nichrome
- Housing Base . . . . . Aluminum, Tri-Metal Plated
- Housing Cover . . . . . Aluminum, Iridited
- Cable\* . . . . . Braided Jacket, Hand-Formable\*\*
- Coaxial Connector . . . . . SMA Male Connector\*\*
- Connector Body . . . . . Stainless Steel, Gold Plated
- Center Contact . . . . . Copper Weld, Silver Plated
- Coupling Nut . . . . . Stainless Steel, Passivated

\* Cable also available with polyolefin (shrink tubing) jacket.  
 \*\* Other cables and connector types available upon request.  
 \*\*\* 100°C as referenced at the heat sink.

### Ordering Information

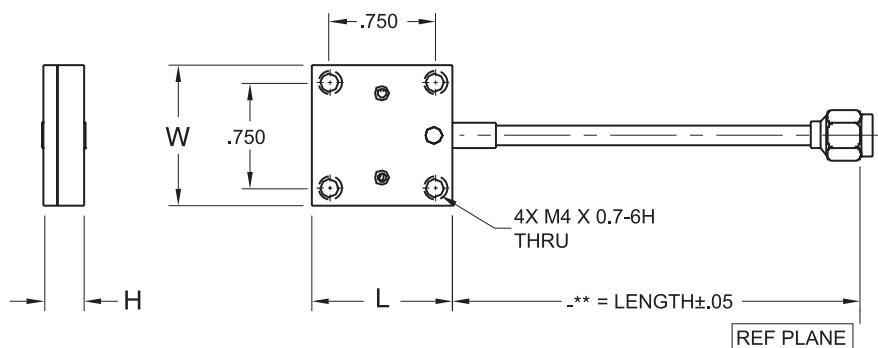


Power (W) <sup>1</sup> Max	Substrate Type	Frequency (GHz)	VSWR (Max)	Dimensions (in.)			Connector	Part Number*
				L	W	H		
20	BeO	6	1.20	.400	.500	.335	SMA	12-5028-
50	BeO	2	1.07	.866	.866	.400	SMA	12-5001-
60	AlN	2	1.08	.866	.866	.500	SMA	12-5042-
60	BeO	5	1.40	.866	.866	.400	SMA	12-5007-
60	BeO	6	1.20	.600	.700	.300	SMA	12-5032-
120	AlN	2	1.11	1.62	.800	.290	None	12-5059-
120	BeO	1	1.25	.964	.964	.400	None	12-5022-
150	AlN	2	1.10	.866	.866	.500	SMA	12-5050-
150	BeO	2	1.10	.964	.964	.400	SMA	12-5005-
150	BeO	2	1.10	.964	.964	.400	None	12-5006-
150	BeO	2	1.10	.866	.866	.400	SMA	12-5013-
150	BeO	2	1.40	.964	.964	.400	SMA	12-5014-
150	BeO	2	1.10	.866	.866	.400	None	12-5016-
150	BeO	2	1.10	.600	.700	.350	SMA	12-5021-
150	BeO	2	1.20	.866	.866	.500	Type N	12-5029-
150	BeO	2	1.10	.866	.866	.500	None	12-5033-
150	BeO	2	1.20	.964	.964	.400	Type N	12-5049-
150	BeO	2	1.10	.866	.866	.500	SMA, Rt Ang	12-5055-
150	BeO	2	1.10	.866	.866	.500	SMA	12-5056-
250	BeO	2	1.08	1.00	1.00	.280	SMA	12-5051-
500	BeO	2.5	1.20	1.00	1.00	.280	Type N	12-5061-

Note: All connectors are straight male unless otherwise indicated.

<sup>1</sup> Peak power is typically 10 times the max power rating with a 1% duty cycle and 100 microsecond pulse width. Please call the factory for your specific application.

\* To complete part number, add cable length.





Power (W) <sup>1</sup> Max	Substrate Type	Frequency (GHz)	VSWR (Max)	Dimensions (in.)		Part Number	Figure
				L	W		
0.5	Alumina	6	1.10	.350	.312	<a href="#">12-0007</a>	1
0.5	Alumina	12.4	1.17	.525	.312	<a href="#">12-0005</a>	1
0.5	Alumina	18	1.23	.530	.250	<a href="#">12-0105</a>	2
0.5	Alumina	18	1.30	.350	.312	<a href="#">12-0008</a>	1
1	Alumina	18	1.15	.440	.210	<a href="#">12-0001</a>	1
1	Alumina	18	1.15	.525	.312	<a href="#">12-0101</a>	2
1	Alumina	18	1.25	.580	.312	<a href="#">12-0013</a>	1
1	Alumina	26.5	1.10	.350	.312	<a href="#">12-0002</a>	1
1	Alumina	26.5	1.10	.440	.210	<a href="#">12-0102</a>	2
1	Alumina	26.5	1.18	.350	.312	<a href="#">12-0003</a>	1
1	Alumina	26.5	1.18	.440	.210	<a href="#">12-0103</a>	2
2	Alumina	1	1.30	.350	.250	<a href="#">12-0019</a>	1
2	Alumina	18	1.25	.500	.312	<a href="#">12-0014</a>	1
2	Alumina	18	1.25	.500	.312	<a href="#">12-0024</a>	1
2	Alumina	18	1.30	.350	.312	<a href="#">12-0026</a>	1
3	BeO	3	1.05	.525	.312	<a href="#">12-0022</a>	1
3	BeO	18	1.20	.525	.312	<a href="#">12-0009</a>	1

<sup>1</sup> Peak power is typically 10 times the max power rating with a 1% duty cycle and 100 microsecond pulse width. Please call the factory for your specific application.

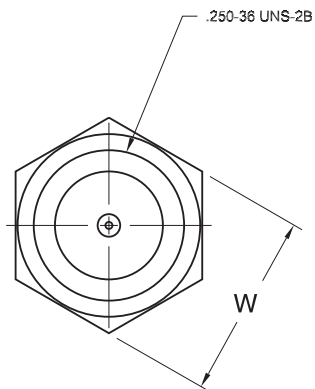


Figure 1

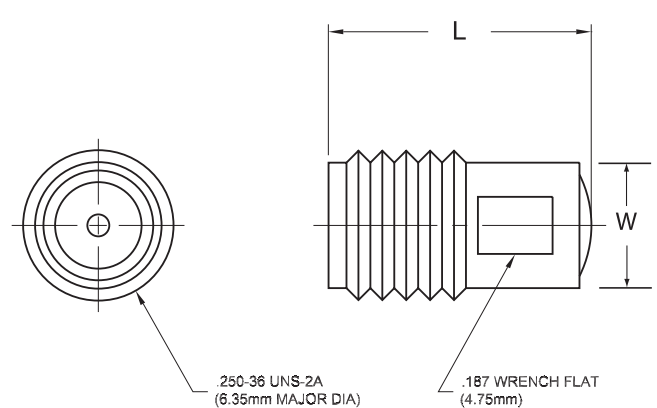
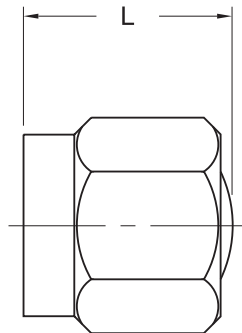


Figure 2



Power (W) <sup>1</sup> Max	Substrate Type	Frequency (GHz)	VSWR (Max)	Dimensions (in.)		Thread	Part Number	Figure
				L	A			
1	Alumina	18	1.20	0.197	0.157	SMA Female	<a href="#">42-3005</a>	2
1	Alumina	18	1.20	0.197	0.040	SMA Female	<a href="#">42-3006</a>	2
2	Alumina	18	1.20	0.160	0.098	SMA Female	<a href="#">42-3018</a>	3
2	Alumina	18	1.30	0.160	0.089	SMA Female	<a href="#">42-3010</a>	1
2	Alumina	18	1.30	0.160	0.064	SMA Female	<a href="#">42-3011</a>	1
3	Alumina	18	1.30	0.250	0.050	SMA Female	<a href="#">42-3008*</a>	1
5	BeO	18	1.30	0.160	0.089	SMA Female	<a href="#">42-3014</a>	1
10	BeO	18	1.30	0.300	0.089	SMA Female	<a href="#">42-3024**</a>	2

<sup>1</sup> Peak power is typically 10 times the max power rating with a 1% duty cycle and 100 microsecond pulse width.

Please call the factory for your specific application.

\* Pin contact is Ø.070 (1.78mm)

\*\* Thread specification is .375 UNS-2A

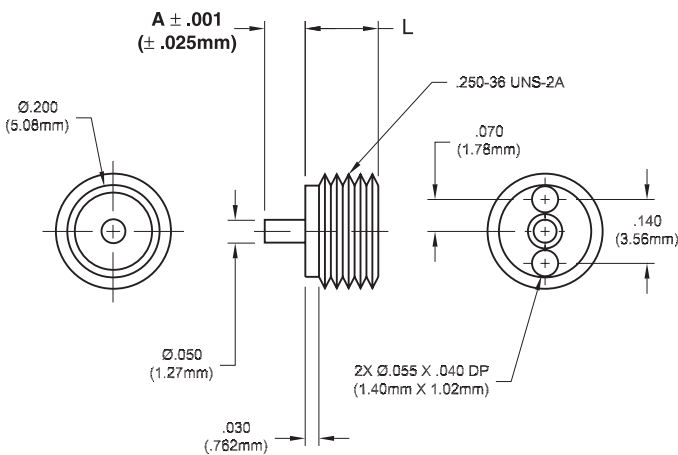


Figure 1

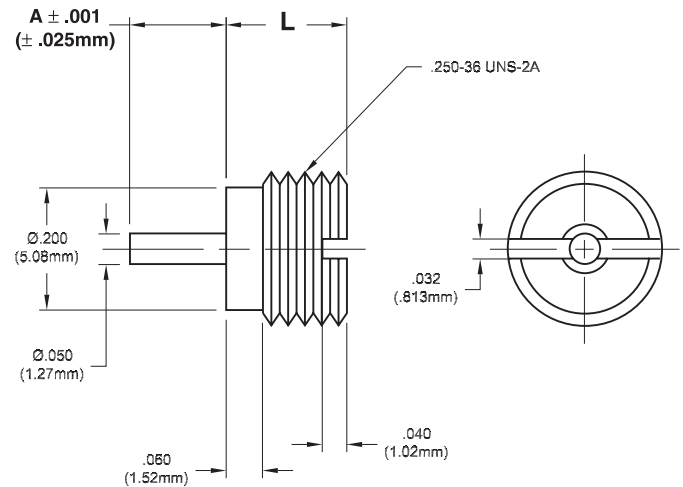


Figure 2

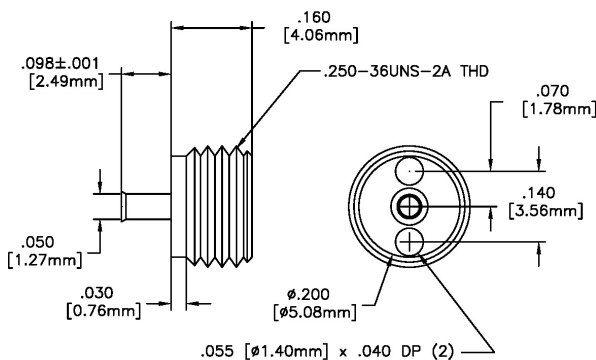


Figure 3