



Mini-Circuits®

COAXIAL

## Precision Fixed Attenuator

BW-S9W5+

50Ω 5 W 9 dB DC to 18 GHz SMA-Female to SMA-Male

## FEATURES

- DC to 18 GHz
- Precision Attenuation
- Excellent VSWR, 1.20 Typ.
- Stainless Steel SMA Male and Female Connectors



Generic photo used for illustration purposes only

## APPLICATIONS

- Impedance Matching
- Instrumentation
- Test Setups

Model No.	BW-S9W5+
Case Style	DC737
Connectors	SMA-Female to SMA-Male

## +RoHS Compliant

The +Suffix identifies RoHS Compliance.  
See our website for methodologies and qualifications

## ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC		18	GHz
Attenuation, Nominal			9		dB
Attenuation, Accuracy <sup>1</sup>	DC - 18		-0.4,+0.8		dB
VSWR <sup>2</sup>	DC - 4			1.20	:1
	4 - 8			1.25	
	8 - 12.4			1.30	
Input Power <sup>3</sup>				5.0	W

1. At +25°C, accuracy includes frequency and power variations. Temperature coefficient for attenuation: .0004 dB/dB/°C typ.

2. VSWR from 12.4 to 18 GHz, 1.6:1 typ.

3. Average power at +25°C ambient, derate linearly to 2 W at +100°C. Peak Power 125 W max. 5 μsec. pulse width, 100 Hz PRF.

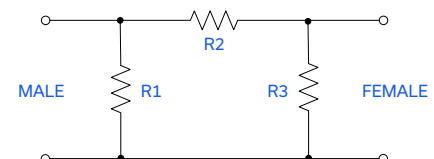
## ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to +100°C
Storage Temperature <sup>4</sup>	-55°C to +100°C

4. With mated connectors. Unmated, +85°C max.

Permanent damage may occur if any of these limits are exceeded.

## ELECTRICAL SCHEMATIC



REV. F  
ECO-024323  
BW-S9W5+  
MCL NY  
250127





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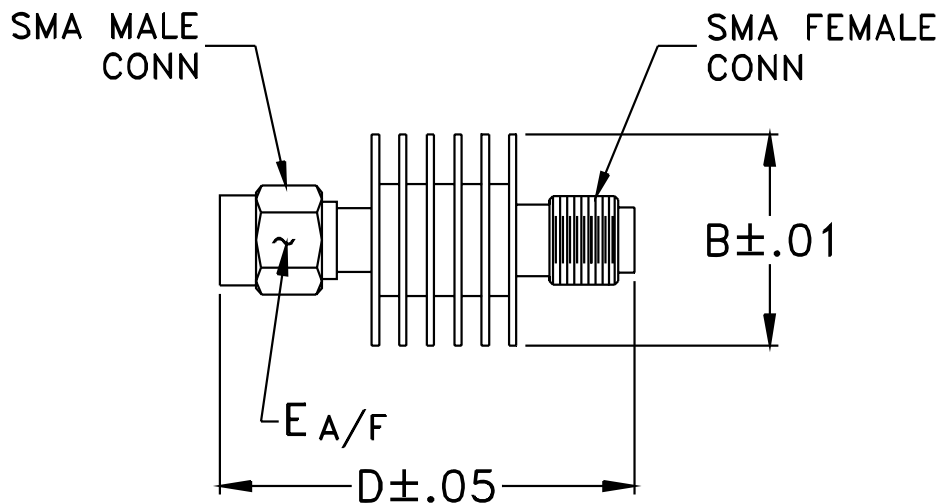
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## OUTLINE DRAWING



## OUTLINE DIMENSIONS (Inch mm)

B	D	E	wt
.61	1.20	.312	grams
15.49	30.48	7.92	9.1



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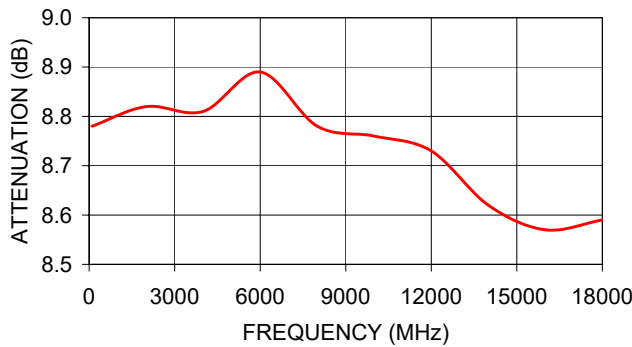
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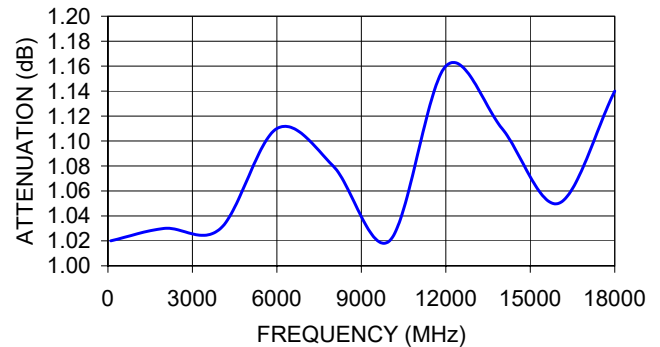
## TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
100	8.78	1.02
2000	8.82	1.03
4000	8.81	1.03
6000	8.89	1.11
8000	8.78	1.08
10000	8.76	1.02
12000	8.73	1.16
14000	8.62	1.11
16000	8.57	1.05
18000	8.59	1.14

BW-S9W5+  
ATTENUATION



BW-S9W5+  
ATTENUATION & VSWR



### NOTES

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/terms/viewterm.html](http://www.minicircuits.com/terms/viewterm.html)

