



COAXIAL

# DC Block

## BLK-89-S+

50Ω 0.1 MHz to 8000 MHz SMA-Female to SMA-Male

### FEATURES

- Broadband performance
- Low Insertion loss
- Rugged unibody construction
- Off-the-shelf availability



Generic photo used for illustration purposes only

### APPLICATIONS

- Test and Measurement Instrumentation
- Communication Systems
- Defense Systems

Model No.	BLK-89-S+
Case Style	FF888
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

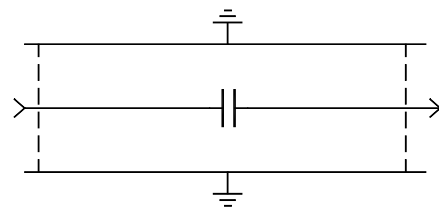
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Frequency Range		0.1		8000	MHz
Insertion Loss	0.1-100	—	0.010	0.09	dB
	100-1000	—	0.10	0.3	
	1000-4000	—	0.15	0.8	
	4000-8000	—	0.50	0.9	
Return Loss	0.1-100	20	40	—	dB
	100-1000	25	36	—	
	1000-4000	18	24	—	
	4000-8000	13	20	—	

### ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Case Temperature	-55 °C to +100 °C
Storage Temperature	-55 °C to +100 °C
DC Input Voltage	+50 V
RF Input Power*	4 W max. at +25 °C

Permanent damage may occur if any of these limits are exceeded.  
 \* Derate linearly to 1W at 100 °C.

### ELECTRICAL SCHEMATIC





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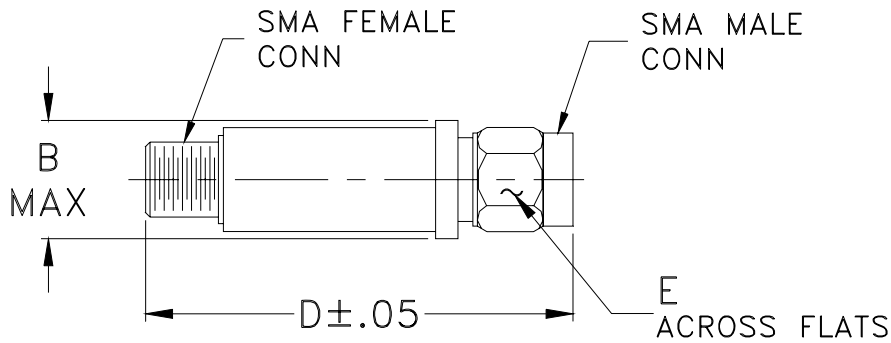
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50Ω 0.1 MHz to 8000 MHz SMA-Female to SMA-Male

### COAXIAL CONNECTIONS

Port 1	SMA - Female
Port 2	SMA - Male

### OUTLINE DRAWING



### OUTLINE DIMENSIONS (Inches) mm

	B	D	E	Weight Grams
inches	.410	1.18	.312	
mm	10.41	29.97	7.92	7.0



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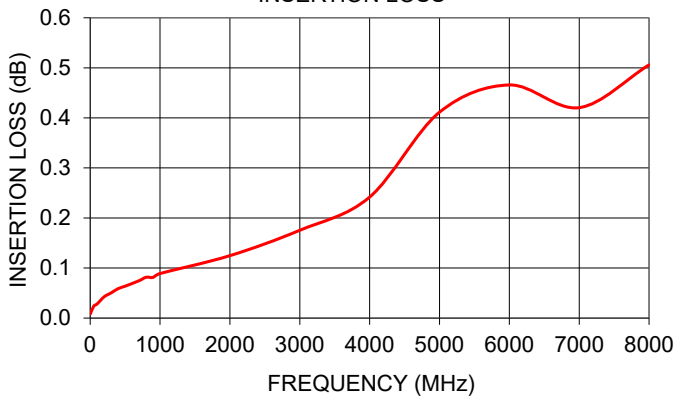
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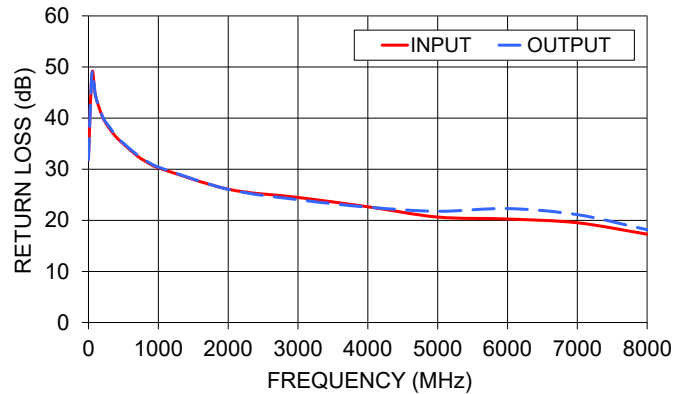
### TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		Male	Female
0.3	0.01	31.86	31.89
0.6	0.01	32.19	32.23
0.9	0.01	32.52	32.58
1.0	0.01	32.63	32.69
50.0	0.02	48.75	48.76
100.0	0.03	44.40	44.44
200.0	0.04	40.26	40.33
300.0	0.05	37.96	38.27
400.0	0.06	36.24	36.45
500.0	0.06	34.94	35.08
700.0	0.07	32.57	32.78
800.0	0.08	31.67	31.84
900.0	0.08	30.86	31.04
1000.0	0.09	30.27	30.41
2000.0	0.12	26.09	26.06
3000.0	0.18	24.48	24.04
4000.0	0.24	22.65	22.58
5000.0	0.41	20.64	21.77
6000.0	0.47	20.26	22.30
7000.0	0.42	19.52	21.11
8000.0	0.51	17.29	18.16

BLK-89-S+ INSERTION LOSS



BLK-89-S+ RETURN LOSS



#### NOTES

- A. 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.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. 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)

