Coaxial

Bias-Tee

ZABT-80W-13-S+

50Ω High Power 80W 20 to 1000 MHz

The Big Deal

- Very high power handling, 80W
- High isolation (DC-RF), up to 70 dB
- Good VSWR, 1.2:1

CASE STYLE: AW1564

Product Overview

Mini-Circuits' ZABT-80W-13-S+ is a coaxial bias-tee providing high power handling, low loss and high isolation across the 20 to 1000 MHz band. Capable of handling up to 5A DC current, this model is ideal for high power systems requiring DC feed on the RF line such as remote antennas and repeaters. The unit comes housed in a rugged aluminum alloy case (3.00 x 2.06 x 2.03") with SMA connectors and a heat sink for efficient cooling.

Key Features

Feature	Advantages
High RF power and DC current handling, 80W, 5A	ZABT-80W-13-S+ supports systems with high power requirements such has high power amplifiers, transmit antennas and more.
Low insertion loss, 0.6 dB	Preserves signal strength from input to output and minimizes overall system loss.
Good VSWR, 1.2:1	Provides efficient power utilization with minimal power reflected back to source.
High DC-RF isolation, up to 70 dB	Minimizes RF signal leakage and interference with other system elements.
Wideband, 20 to 1000 MHz	Supports a variety of high power wideband and multi-band applications.

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Generic photo used for illustration purposes only

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Connectors	Model
SMA	ZABT-80W-13-S+

+RoHS Compliant

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

Maximum Ratings

Operating Temperature	-55°C to 65°C
Storage Temperature	-55°C to 100°C
RF Power	49 dBm max.
Voltage at DC port	50 V max.
Input Current	5A
DC resistance from DC to RF&DC port	1.0 ohm typ.

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

Coaxial Connections

RF	OUT
RF&DC	IN
DC	CPL

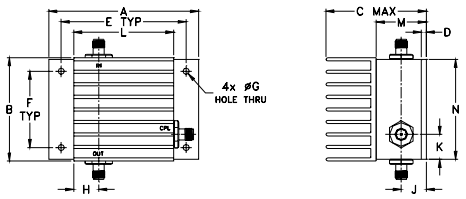
Features

- high isolation (DC-RF), 50 dB typ.
- low insertion loss, 0.6 dB typ.
- good VSWR 1.2:1typ.

Applications

- biasing amplifiers
- biasing of laser diodes
- biasing of active antennas
- DC return
- DC blocking
- test accessory

Outline Drawing

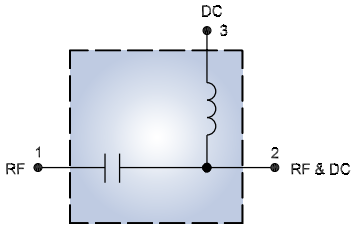


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
3.00	2.06	2.03	.10	2.500	1.525	.125
76.20	52.32	51.56	2.54	63.50	38.74	3.18

H	J	K	L	M	N	wt
.50	.50	.50	2.00	1.00	2.00	grams
12.70	12.70	12.70	50.80	25.40	50.80	230

Electrical Schematic



Electrical Specifications at 25°C

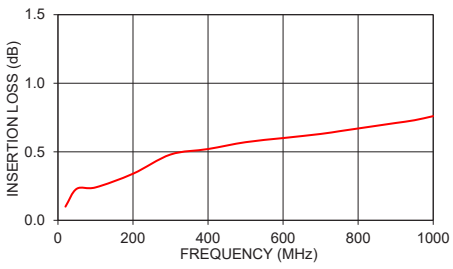
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		20		1000	MHz
Insertion Loss*	20-200	—	0.15	0.6	dB
	200-500	—	0.6	0.8	
	500-1000	—	0.8	1.1	
Isolation	20-200	40	70	—	dB
	200-500	35	60	—	
	500-1000	30	50	—	
VSWR**	20-200	—	1.06	1.2	:1
	200-500	—	1.13	1.3	
	500-1000	—	1.25	1.5	

*Insertion Loss and Isolation are guaranteed up to 40 dBm-RF power and 3A DC current.
**VSWR measured with open and short at DC port.

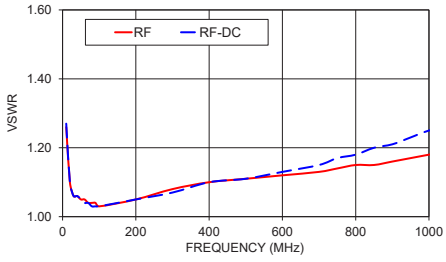
Typical Performance Data

Freq. (MHz)	INSERTION LOSS (dB)	VSWR(:1)		ISOLATION (dB)	
		RF	RF&DC	RF-DC	RF&DC-DC
20.00	0.10	1.10	1.10	83.62	83.86
50.00	0.23	1.05	1.05	75.27	74.94
100.00	0.24	1.03	1.03	70.33	70.33
200.00	0.34	1.05	1.05	66.55	66.31
300.00	0.48	1.08	1.07	65.47	65.11
400.00	0.52	1.10	1.10	65.62	65.12
500.00	0.57	1.11	1.11	65.90	65.28
600.00	0.60	1.12	1.13	66.03	65.47
700.00	0.63	1.13	1.15	65.54	65.28
750.00	0.65	1.14	1.17	65.19	65.15
800.00	0.67	1.15	1.18	64.87	64.88
850.00	0.69	1.15	1.20	64.20	64.68
900.00	0.71	1.16	1.21	63.64	64.50
950.00	0.73	1.17	1.23	62.63	64.12
1000.00	0.76	1.18	1.25	61.72	63.64

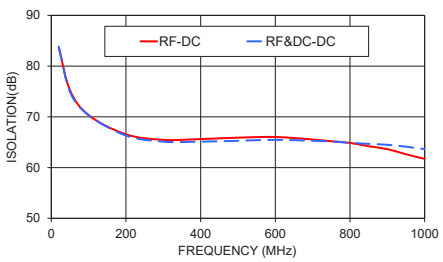
ZABT-80W-13-S+
INSERTION LOSS



ZABT-80W-13-S+
VSWR



ZABT-80W-13-S+
ISOLATION



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/MCLStore/terms.jsp