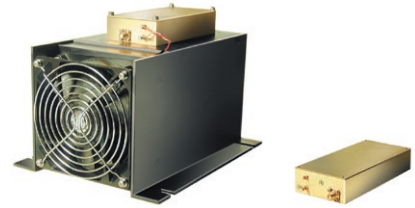


Coaxial High Power Amplifier

ZHL-50W-52

50Ω 50W 50 to 500 MHz



Features

- High power, 50 Watt
- Excellent IP3, +55 dBm typ.
- Class A amplifier, usable up to 75W
- Shuts off when base plate temperature exceeds +100°C
- Good gain flatness, ±1.0 dB typ.
- Internal power regulator (current remains constant over 22 to 28V)
- Over voltage protection, shut off above 29V
- Patent pending

Applications

- VHF/UHF transmitters
- Defense
- Amateur radio, FM, TV
- Laboratory use

Model No.	ZHL-50W-52-S	ZHL-50W-52X-S [▲]
Case Style	BT1165	
Connectors	SMA	
Price (Qty.)	\$1395.00 ea. (1-9)	\$1320.00 ea. (1-9)

Electrical Specifications¹ at 25°C

Parameter	Frequency (MHz)	ZHL-50W-52			ZHL-30W-50W-52X [▲]			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Frequency Range		50		500	50		500	MHz
Gain	100	47	50		47	50		dB
	500	46	50		46	50		
Gain Flatness			±2.0	±2.8		±2.0	±2.8	dB
Output Power at 1dB compression	120-260	+45.5	+48		+45.5	+48		dBm
	50-500	+43	+45		+43	+45		
Saturated Output Power at 3dB compression	120-260	+47	+48		+47	+48		dBm
	50-500	+45	+48		+45	+48		
Noise Figure			6.0	8.0		6.0	8.0	dB
Output third order intercept point			+55			+55		dBm
Input VSWR			1.6			1.6		:1
Output VSWR			2.0			2.0		:1
DC Supply Voltage			24	25		24	25	V
Supply Current				9.3			9.0	A

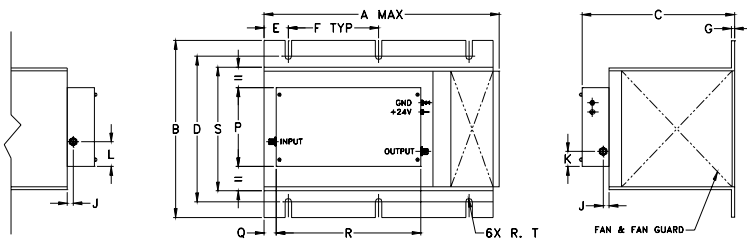
1. All specifications are for a single input CW signal.

At nominal output load, 24V nominal supply voltage.

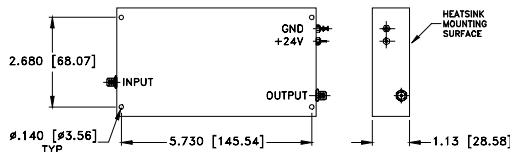
An open or a short load is not recommended potentially can cause damage.

[▲] Heat sink and fan not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 85°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 0.08°C/W max.

Outline Drawing



MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt
9.85	7.3	6.3	6.00	1.00	3.75	.13	—	.25	.63	1.03	—	—	3.25	.5	6.00	5.1	.135	grams*
250.19	185.42	160.02	152.40	25.40	95.25	3.30	—	6.35	16.00	26.16	—	—	82.55	12.70	152.40	129.54	3.43	4185

*500 grams without heatsink

Maximum Ratings

Parameter	Ratings
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
Base Plate Temperature	85°C
Input RF Power (no damage)	0 dBm

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



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/IRF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

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