

# Self-Cooled High Power Amplifier

## LZY-2

50Ω 50W 500 to 1000 MHz

### Features

- saturated power 32W typ.
- high power with low distortion, -45 dBc typ.
- wide bandwidth, usable 475 - 1050 MHz
- high gain, 47 dB typ.
- unconditionally stable
- self protected against excessive drive, high case temp., reverse polarity and shorting/unshorting transients at dc input
- electronic shutoff by grounding the shut-off terminal, reduces output by 50 dB. open circuiting terminal restores full power within 40 ms
- cool operation with integral fan, 15° C typ. rise
- graceful degradation, +20 to +30V DC
- can withstand short and open circuit at output for 2 minutes while delivering 20 watts

### Applications

- AM/FM
- multi-carrier amplification cellular band
- broadband swept signal
- feed forward
- linear pulse



CASE STYLE: BT451

Connectors	Model	Price	Qty.
SMA	LZY-2	\$2195.00 ea.	(1-9)

### High Power Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)		MAXIMUM POWER (dBm)			DYNAMIC RANGE		VSWR (:1)		DC POWER	
	f <sub>L</sub>	f <sub>U</sub>	Min.	Flatness Max.	Output (1 dB Compr.) Min.	Max. Output Typ.	Max. Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current** (A) Max.
LZY-2	500	1000	40	±1.5	+43	+45	+10	8.0	+54	2.0	3.5	+26	8.0

\*\*At 20W output including operation of fan.  
Open load is not recommended, potentially can cause damage.

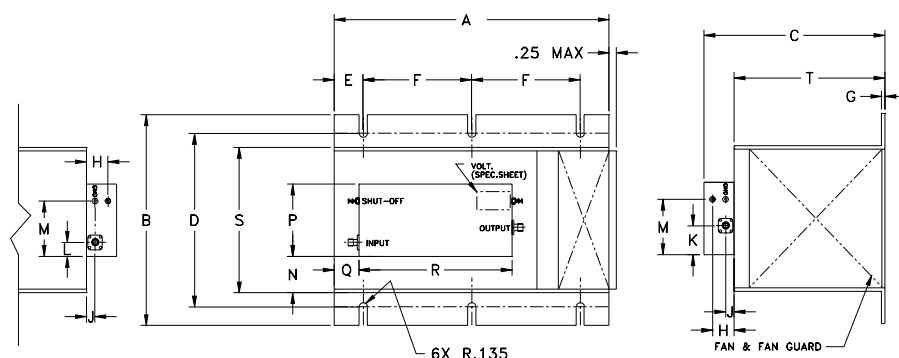


To order without heat sink and fan, add suffix-X to model number. Alternative heat sinking and heat removal must be provided by customer to ensure proper performance. See application note AN-60-005. Deduct \$100 from price list

### Maximum Ratings

Operating Temperature	-10°C to 50°C
Storage Temperature	-55°C to 100°C
DC Voltage	+30V Max.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt
9.50	7.3	6.3	6.00	.98	3.75	.13	.78	.31	1.48	1.48	2.45	1.1	2.95	.5	6.00	5.1	5.2	grams
241.30	185.42	160.02	152.40	24.89	95.25	3.30	19.81	7.87	37.59	37.59	62.23	27.94	74.93	12.70	152.40	129.54	132.08	4000



INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

REV. OR  
M98211  
LZY-2  
051228  
Page 1 of 2

# Typical Performance Data/Curves

# LZY-2

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		POUT at 1 dB COMPR. (dBm)	NOISE FIGURE (dB)
	25V	28V	29V	25V	28V	29V	IN	OUT		
500.00	46.71	46.25	46.25	10.19	9.10	9.74	1.11	1.25	44.85	6.89
520.00	46.86	46.40	46.40	3.69	5.99	6.85	1.20	1.26	45.19	6.84
560.00	47.23	46.80	46.79	4.75	7.13	12.62	1.49	1.27	44.73	6.86
580.00	47.09	46.68	46.69	3.31	10.37	4.95	1.62	1.23	44.64	6.90
600.00	46.82	46.42	46.43	9.84	20.59	5.82	1.71	1.17	44.55	6.99
620.00	46.68	46.28	46.28	14.20	8.08	14.23	1.73	1.11	44.22	7.14
660.00	46.73	46.31	46.29	7.80	7.12	7.68	1.63	1.06	44.73	7.26
700.00	47.31	46.87	46.84	5.07	5.58	31.47	1.55	1.10	44.72	7.30
720.00	47.45	46.99	46.95	4.89	8.97	9.59	1.57	1.11	44.68	7.31
760.00	47.22	46.74	46.70	10.86	4.13	17.40	1.58	1.21	44.50	7.36
780.00	47.20	46.72	46.69	8.41	5.76	5.47	1.52	1.31	44.52	7.30
800.00	46.57	46.13	46.12	13.90	5.77	20.27	1.44	1.45	43.78	7.30
820.00	46.04	45.62	46.62	8.14	15.95	10.83	1.36	1.60	43.80	7.33
860.00	45.99	45.50	45.48	17.67	13.95	6.92	1.23	1.88	44.00	7.41
880.00	46.22	45.64	45.58	14.30	14.22	9.78	1.19	1.90	44.08	7.44
900.00	46.67	46.04	45.95	7.45	13.25	5.41	1.17	1.77	45.07	7.49
920.00	47.19	46.55	46.45	4.18	17.28	6.01	1.16	1.46	45.33	7.57
960.00	48.00	47.38	47.29	20.58	8.48	14.53	1.20	1.63	45.63	7.84
980.00	47.86	47.37	47.36	9.66	10.95	8.83	1.22	2.15	44.53	7.92
1000.00	46.85	46.51	46.60	25.54	12.59	14.78	1.21	1.68	43.35	8.05

