

ZHL-2-8+ PCN Report

AN-60-075

As a result of the introduction of a RoHS compliant version (+) and assembly option at an alternate qualified Mini-Circuits facility, the replacement part has been judged by the Mini-Circuits Engineering team as a suitable replacement for the existing ZHL-2-8_o.

CASE STYLE

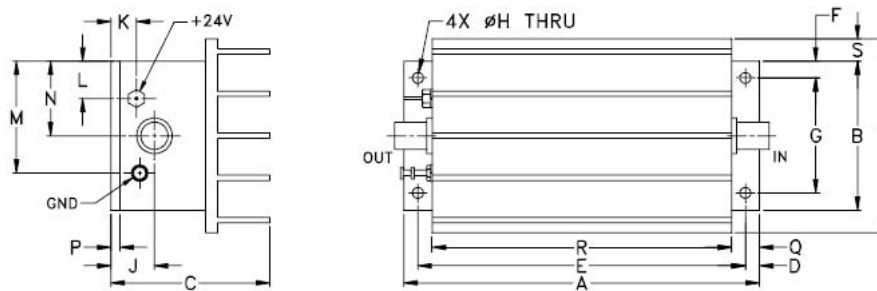
ORIGINAL PART: ZHL-2-8

REPLACEMENT PART: ZHL-2-8+

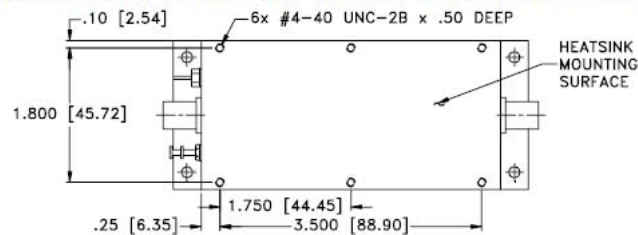
CASE STYLE: T34, No change



Outline Drawing for models with heatsink



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
4.75	2.00	2.12	.19	4.375	.23	1.540	.144	.58	.34	.50	1.50	1.00	.12	.38	4.00	.30	2.60	grams*
120.65	50.80	53.85	4.83	111.13	5.84	39.12	3.66	14.73	8.64	12.70	38.10	25.40	3.05	9.65	101.60	7.62	66.04	440.0
																		*325 grams without heatsink

- a. Suitability within a particular system must be determined by and is solely the responsibility of the customer based on, among other things, electrical performance criteria, stimulus conditions, application, compatibility with other components and environmental conditions and stresses.

CONCLUSION:

- 1) No change in FIT and FORM
- 2) Functional Changes as follows:

Parameter	Original Part, ZHL-2-8	Replacement Part, ZHL-2-8+
Gain	31dB min, 35dB typ	31dB min, 34dB typ, 39dB max
Gain Flatness	+/-1dB max	+/-1.3dB max, +/-0.8dB typ
P1dB	29dBm min	28dBm min, 29dBm typ
P3dB	N/A	29dBm min, 30dBm typ
Noise Figure	10dB typ	7dB typ
OIP3	38dBm typ	42dBm typ
Supply Current	0.6A max	0.7A max

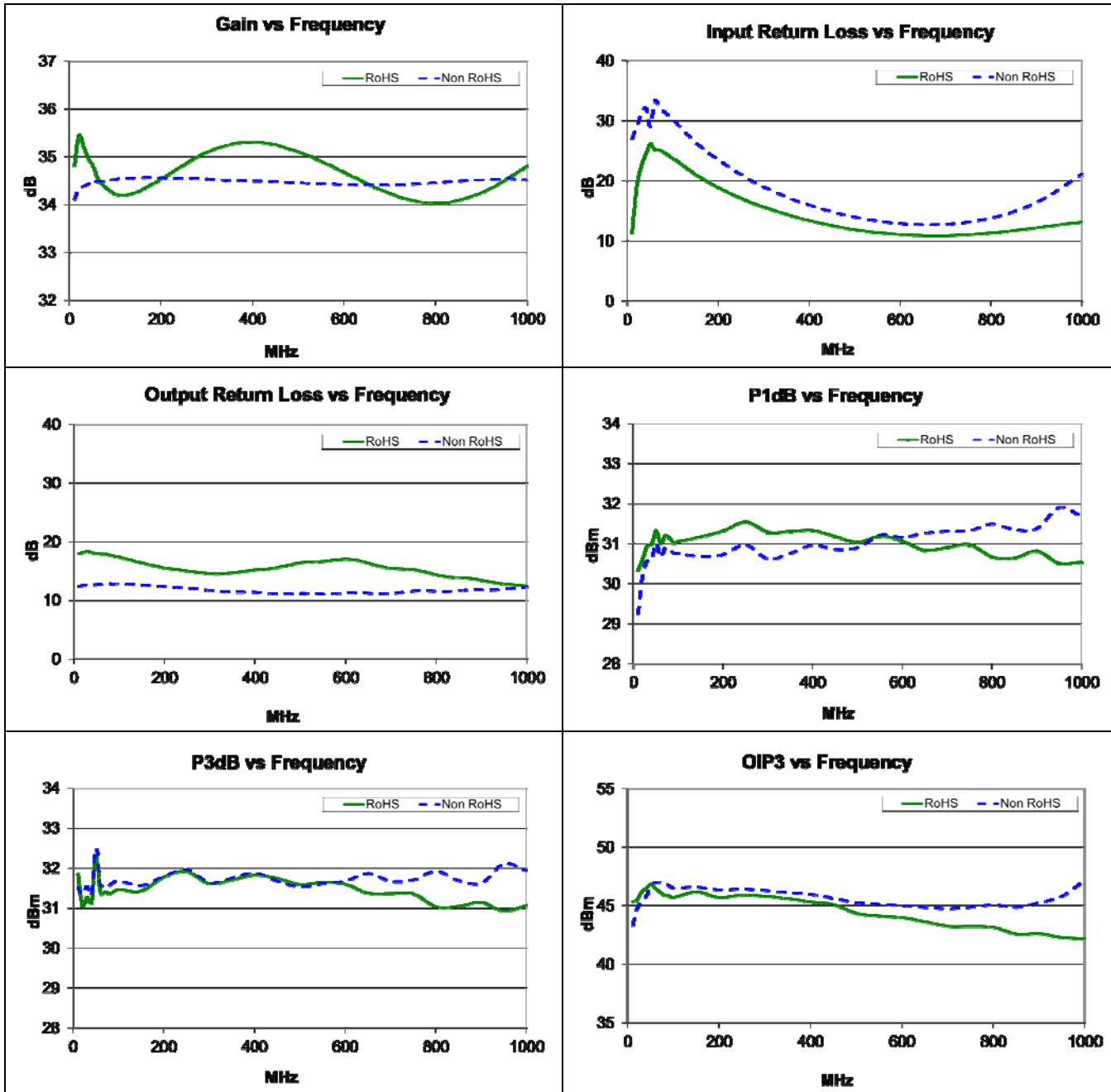
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3) TYPICAL PERFORMANCE COMPARISON_a: T_{AMB}=25°C

Parameter	Freq (MHz)	Non RoHS (ZHL-2-8)		RoHS (ZHL-2-8+)	
		Min	Max	Min	Max
Gain (dB)	10-1000	34.11	34.56	33.46	35.45
Gain Flatness (dB)	10-1000	-----	+/-0.23	-----	+/-0.77
Input VSWR (:1)	10-1000	-----	1.59	-----	1.79
Output VSWR (:1)	10-1000	-----	1.78	-----	1.64
Pout 1dB (dBm)	10-1000	29.25	-----	30.35	-----
Pout 3dB (dBm)	10-1000	31.33	-----	30.93	-----
OIP3 (dBm)	10-1000	44.35	-----	42.17	-----
Noise Figure (dB)	10-1000	-----	5.44	-----	7.41
DC Voltage (V)	-----	-----	24	-----	24
Supply Current (A)	-----	-----	0.54	-----	0.58

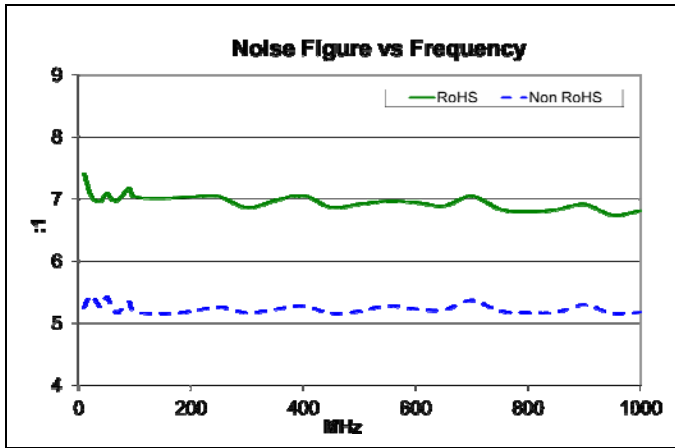
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COMPARISON PERFORMANCE CURVES^a: T_{AMB}=25°C



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COMPARISON PERFORMANCE CURVES^a (Continued):



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