

ZHL-2-12+ PCN Report

AN-60-068

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-2-12_o.

CASE STYLE

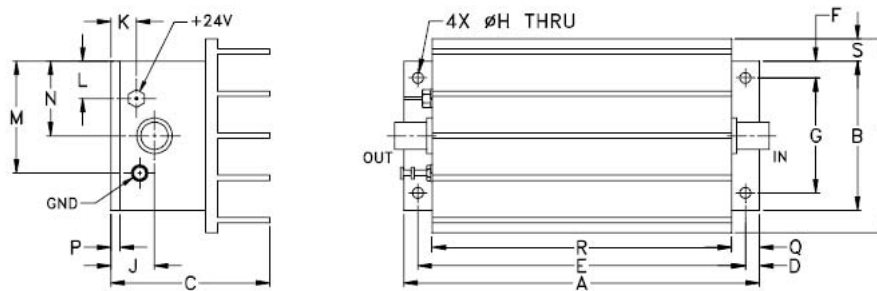
ORIGINAL PART: ZHL-2-12

REPLACEMENT PART: ZHL-2-12+

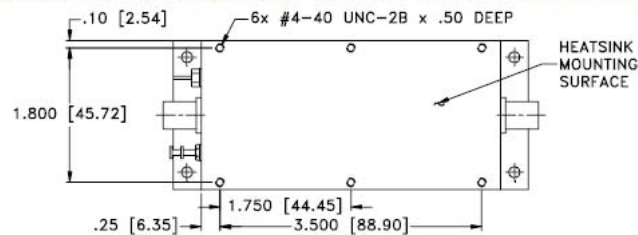
CASE STYLE: T34, No change



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:

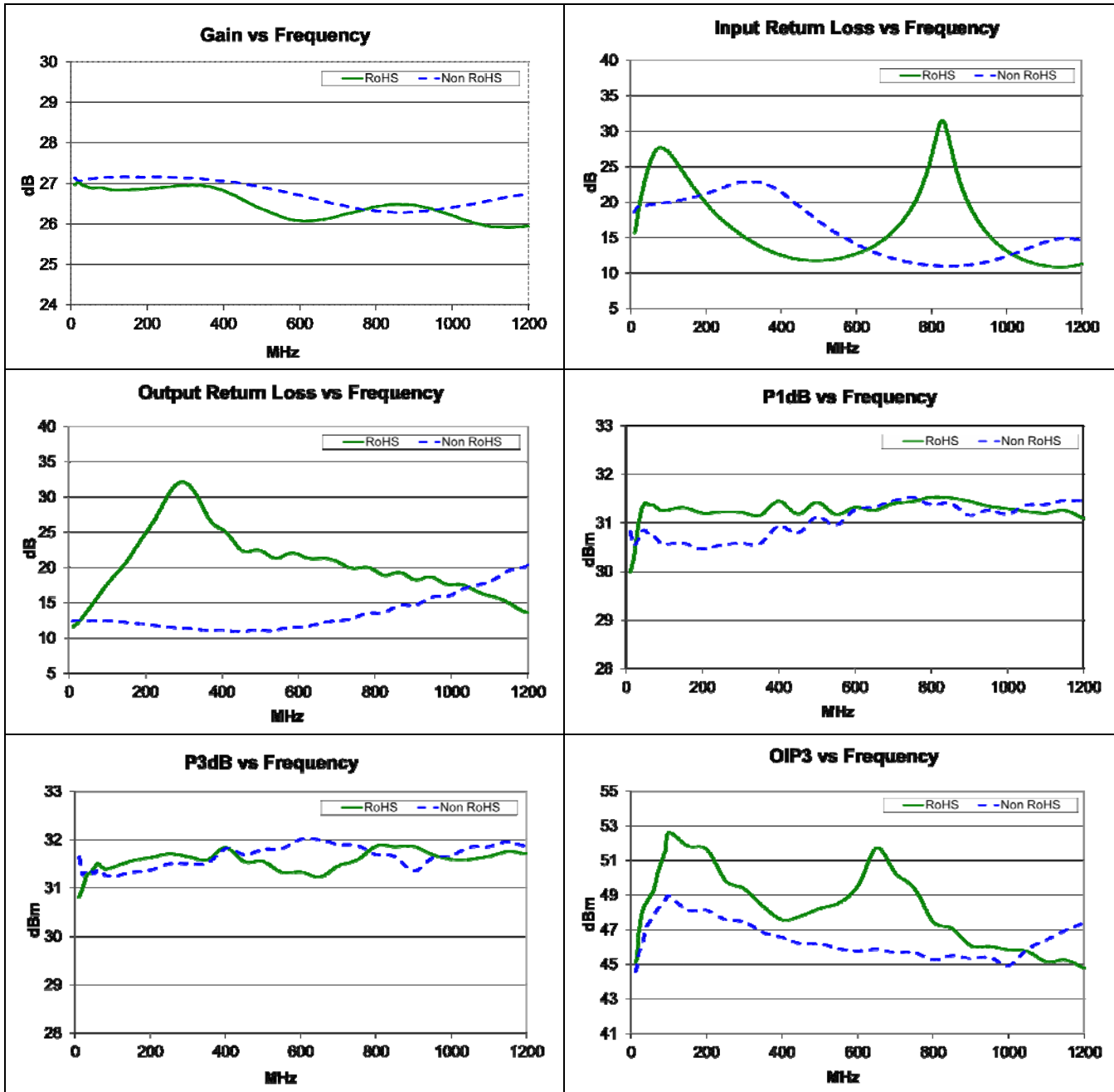
Parameter	Original Part, ZHL-2-12	Replacement Part, ZHL-2-12+
Gain Flatness	+/- 1 dB Max	+/-1.2dB max, +/-0.7dB typ
Input VSWR	2:1 max	2.2:1 max
Output VSWR	2:1 max	2.2:1 max
P1dB	+29dBm min* *+28.5dBm min at 1000-1200MHz	28dBm min, 29dBm typ
P3dB	N/A	29dBm min, 30dBm typ
Noise Figure	4dB typ** **Below 100MHz, Noise Figure increases to 16dB at 10MHz	5dB typ
OIP3	38dBm typ	45dBm typ

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

Parameter	Freq (MHz)	Non RoHS		RoHS	
		Min	Max	Min	Max
Gain (dB)	10-1200	26.29	27.16	25.73	27.06
Gain Flatness (dB)	10-1200	-----	+/-0.43	-----	+/-0.67
Input VSWR (:1)	10-1200	-----	1.78	-----	1.8
Output VSWR (:1)	10-1200	-----	1.8	-----	1.72
Pout 1dB (dBm)	10-1200	30.47	-----	29.99	-----
Pout 3dB (dBm)	10-1200	31.24	-----	30.82	-----
OIP3 (dBm)	10-1200	44.57	-----	44.77	-----
Noise Figure (dB)	10-1200	-----	4.9	-----	5.34
DC Voltage (V)	-----	-----	24	-----	24
Supply Current (A)	-----	-----	0.48	-----	0.56

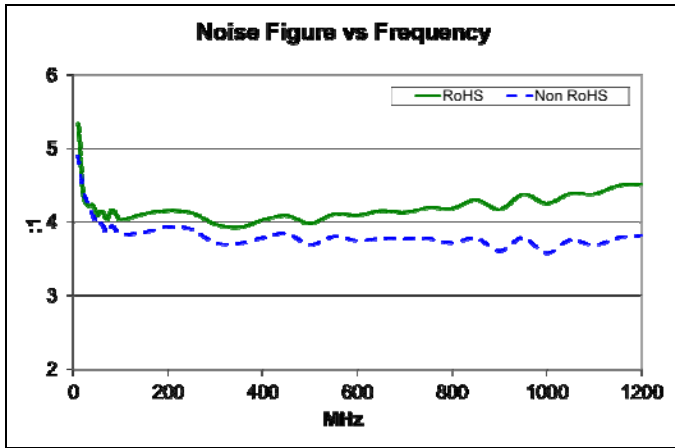
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COMPARISON PERFORMANCE CURVES^a: T_{AMB}=25°C



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COMPARISON PERFORMANCE CURVES^a (Continued):



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