The RF Line

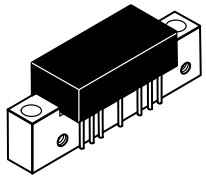
Low Distortion Wideband Reverse Amplifier Modules

Designed specifically for broadband applications requiring low distortion characteristics. Specified for use as return amplifiers for low–split 2–way cable TV systems. Features all gold metallization system.

- Guaranteed Broadband Power Gain
- Guaranteed Broadband Noise Figure
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization
- Circuit Design Optimized for Good RF Stability Under High VSWR Load Conditions
- Transformers Designed to Insure Good Low Frequency Gain Stability versus Temperature

MHW1184L
MHW1224L
MHW1254L
MHW1304L

24 Vdc
50 MHz
18/22/25/30 dB
CATV LOW CURRENT AMPLIFIER



CASE 714–06, STYLE 1

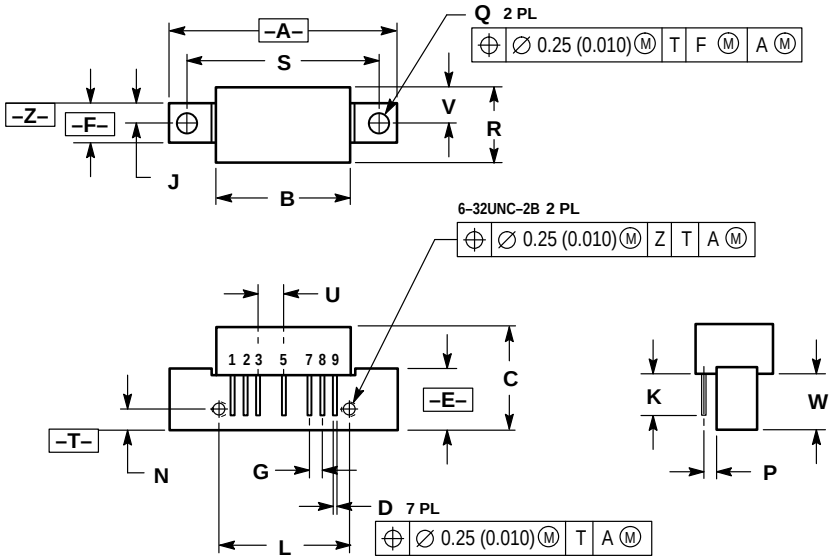
MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
DC Supply Voltage	V_{CC}	+28	Vdc
RF Input Voltage (Single Tone)	V_{IN}	+70	dBmV
Operating Case Temperature Range	T_C	– 20 to +100	°C
Storage Temperature Range	T_{stg}	– 40 to +100	°C

ELECTRICAL CHARACTERISTICS (V_{CC} = 24 Vdc, T_C = 30°C, 75 ohm system, unless otherwise noted)

Characteristic			Symbol	Min	Max	Unit
Bandwidth	All		BW	5.0	50	MHz
Power Gain	(f = 5.0 MHz)	MHW1184L MHW1224L MHW1254L MHW1304L	Gp	18.0 21.4 24.3 29.2	19.0 22.7 25.8 30.8	dB
Return Loss	(@ f = 5.0–50 MHz)	MHW1184L, MHW1224L, MHW1254L MHW1304L	RL	20 18	—	dB
Second Order Distortion	(V_{out} = +50 dBmV/ch)	All	IMD	—	–70	dBc
Cross Modulation	(V_{out} = +50 dBmV/ch)	MHW1184L MHW1224L MHW1254L MHW1304L	XMD_4	— — —	–64 –63 –62 –57	dBc
Triple Beat Distortion	(V_{out} = +50 dBmV/ch)	MHW1184L MHW1224L MHW1254L MHW1304L	TB_3	— — — —	–73 –72 –70 –66	dBc
Noise Figure	(f = 50 MHz)	MHW1184L, MHW1224L MHW1254L, MHW1304L	NF	— —	5.0 4.5	dB
DC Current	All		IDC	100	135	mA

PACKAGE DIMENSIONS



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	——	1.775	——	45.08
B	——	1.085	——	27.56
C	——	0.840	——	21.34
D	0.018	0.022	0.46	0.56
E	0.465	0.510	11.81	12.95
F	0.300	0.325	7.62	8.25
G	0.100 BSC		2.54 BSC	
J	0.156 BSC		3.96 BSC	
K	0.315	0.355	8.00	8.50
L	1.00 BSC		25.40 BSC	
N	0.165 BSC		4.10 BSC	
P	0.100 BSC		2.54 BSC	
Q	0.148	0.168	3.76	4.27
R	——	0.595	——	15.11
S	1.500 BSC		38.10 BSC	
U	0.200 BSC		5.08 BSC	
V	0.280 BSC		7.11 BSC	
W	0.435	0.450	11.05	11.43

STYLE 1:
PIN 1. RF INPUT
2. GROUND
3. GROUND
4. DELETED
5. VDC
6. DELETED
7. GROUND
8. GROUND
9. RF OUTPUT

CASE 714–06
ISSUE K

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