



CATV Amplifier Module

Features

- Specified for 4-Channel Loading
- Superior Gain, Return Loss and DC Current Stability over Temperature
- Capable of Handling Multiple Channels in the Return Path with Good Distortion Performance
- Silicon Bipolar Transistor Technology
- Unconditionally Stable Under All Load Conditions

Applications

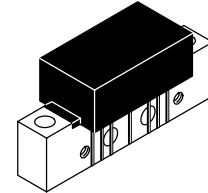
- CATV Systems Operating in the 5 to 50 MHz Frequency Range
- Specified for Use as a Return Path Amplifier for Low-Split 2-Way Cable TV Systems

Description

- 24 Vdc Supply, 5 to 50 MHz, CATV Reverse Amplifier Module
- Replaced MHW1254L. There are no form, fit or function changes with this part replacement.
- RoHS Compliant

MHW1254LN

**50 MHz, 25 dB, 4-CHANNEL
 CATV LOW CURRENT
 AMPLIFIER MODULE**



CASE 1302-01, STYLE 1

Table 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

Table 2. Electrical Characteristics (V_{CC} = 24 Vdc, T_C = 30°C, 75 ohm system, unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Bandwidth	BW	5.0	50	MHz
Power Gain (f = 5.0 MHz)	G _p	24.3	25.8	dB
Return Loss (@ f = 5.0-50 MHz)	RL	20	—	dB
Second Order Distortion (V _{out} = +50 dBmV/ch)	IMD	—	-70	dBc
Cross Modulation (V _{out} = +50 dBmV/ch)	XMD ₄	—	-62	dBc
Triple Beat Distortion (V _{out} = +50 dBmV/ch)	TB ₃	—	-70	dBc
Noise Figure (f = 50 MHz)	NF	—	4.5	dB
DC Current	IDC	100	135	mA

ARCHIVE INFORMATION

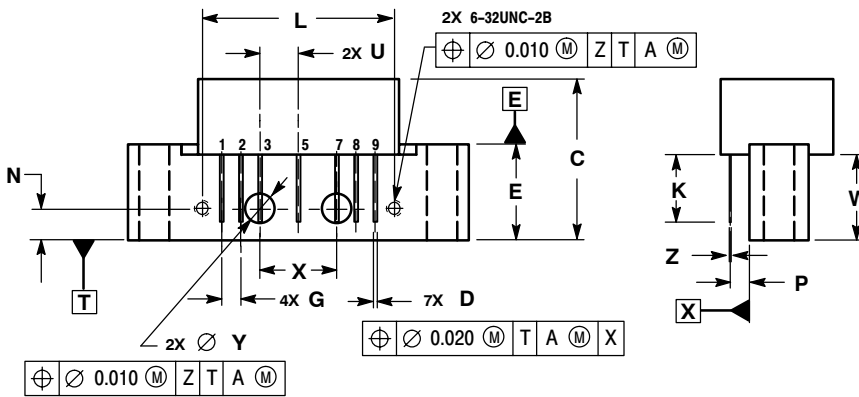
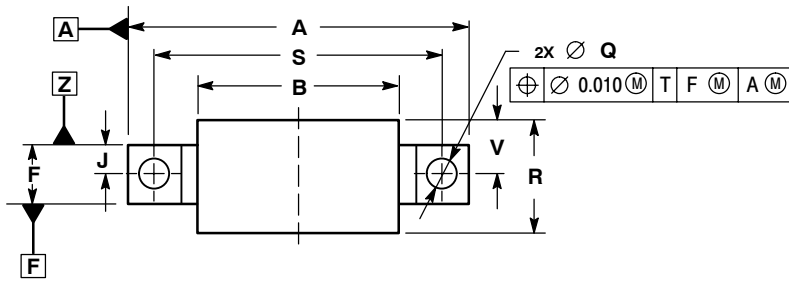
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NOTES

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PACKAGE DIMENSIONS



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	---	1.775	---	45.085
B	---	1.085	---	27.559
C	---	0.840	---	21.336
D	0.015	0.021	0.381	0.533
E	0.465	0.510	11.811	12.954
F	0.300	0.325	7.62	8.255
G	0.100 BSC		2.540 BSC	
J	0.156 BSC		3.962 BSC	
K	0.315	0.355	8.001	9.017
L	1.000 BSC		25.400 BSC	
N	0.165 BSC		4.191 BSC	
P	0.100 BSC		2.540 BSC	
Q	0.148	0.168	3.759	4.267
R	---	0.600	---	15.24
S	1.500 BSC		38.100 BSC	
U	0.200 BSC		5.080 BSC	
V	---	0.250	---	6.350
W	0.435	---	11.049	---
X	0.400 BSC		10.160 BSC	
Y	0.152	0.163	3.861	4.140
Z	0.009	0.011	0.229	0.279

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

**CASE 1302-01
 ISSUE E**

How to Reach Us:

Home Page:
www.freescale.com

E-mail:
support@freescale.com

USA/Europe or Locations Not Listed:
Freescale Semiconductor
Technical Information Center, CH370
1300 N. Alma School Road
Chandler, Arizona 85224
+1-800-521-6274 or +1-480-768-2130
support@freescale.com

Europe, Middle East, and Africa:
Freescale Halbleiter Deutschland GmbH
Technical Information Center
Schatzbogen 7
81829 Muenchen, Germany
+44 1296 380 456 (English)
+46 8 52200080 (English)
+49 89 92103 559 (German)
+33 1 69 35 48 48 (French)
support@freescale.com

Japan:
Freescale Semiconductor Japan Ltd.
Headquarters
ARCO Tower 15F
1-8-1, Shimo-Meguro, Meguro-ku,
Tokyo 153-0064
Japan
0120 191014 or +81 3 5437 9125
support.japan@freescale.com

Asia/Pacific:
Freescale Semiconductor Hong Kong Ltd.
Technical Information Center
2 Dai King Street
Tai Po Industrial Estate
Tai Po, N.T., Hong Kong
+800 2666 8080
support.asia@freescale.com

For Literature Requests Only:
Freescale Semiconductor Literature Distribution Center
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