

The RF Line CATV Amplifier Module

Features

- Specified for up to 112-Channel Loading
- Excellent Distortion Performance
- Superior Gain, Return Loss and DC Current Stability over Temperature
- Silicon Bipolar Transistor Technology
- Unconditionally Stable Under All Load Conditions

Applications

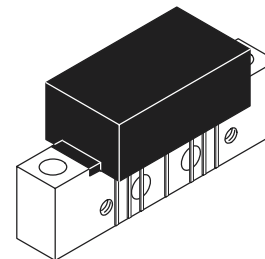
- CATV Systems Operating in the 40 to 750 MHz Frequency Range
- Single Module High Gain Line Amplifier in Cable TV Distribution System

Description

- 24 Vdc Supply, 40 to 750 MHz, CATV High Gain Forward Amplifier Module

MHW7342

**750 MHz
 35.2 dB GAIN
 112-CHANNEL
 CATV AMPLIFIER MODULE**



CASE 1302-01, STYLE 1

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V_{in}	+55	dBmV
DC Supply Voltage	V_{CC}	+28	Vdc
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, $T_C = +30^\circ\text{C}$, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	750	MHz
Power Gain	G_p	33.2 33.8	34 35.2	34.8 36	dB
Slope	S	0.3	1.2	2.25	dB
Gain Flatness (Peak To Valley)	G_F	—	0.3	0.8	dB
Return Loss — Input ($Z_o = 75$ Ohms)	IRL	22 18 16 14	28 25 22 19	— — — —	dB
Return Loss — Output ($Z_o = 75$ Ohms)	ORL	22 19 17 15	28 25 22 22	— — — —	dB

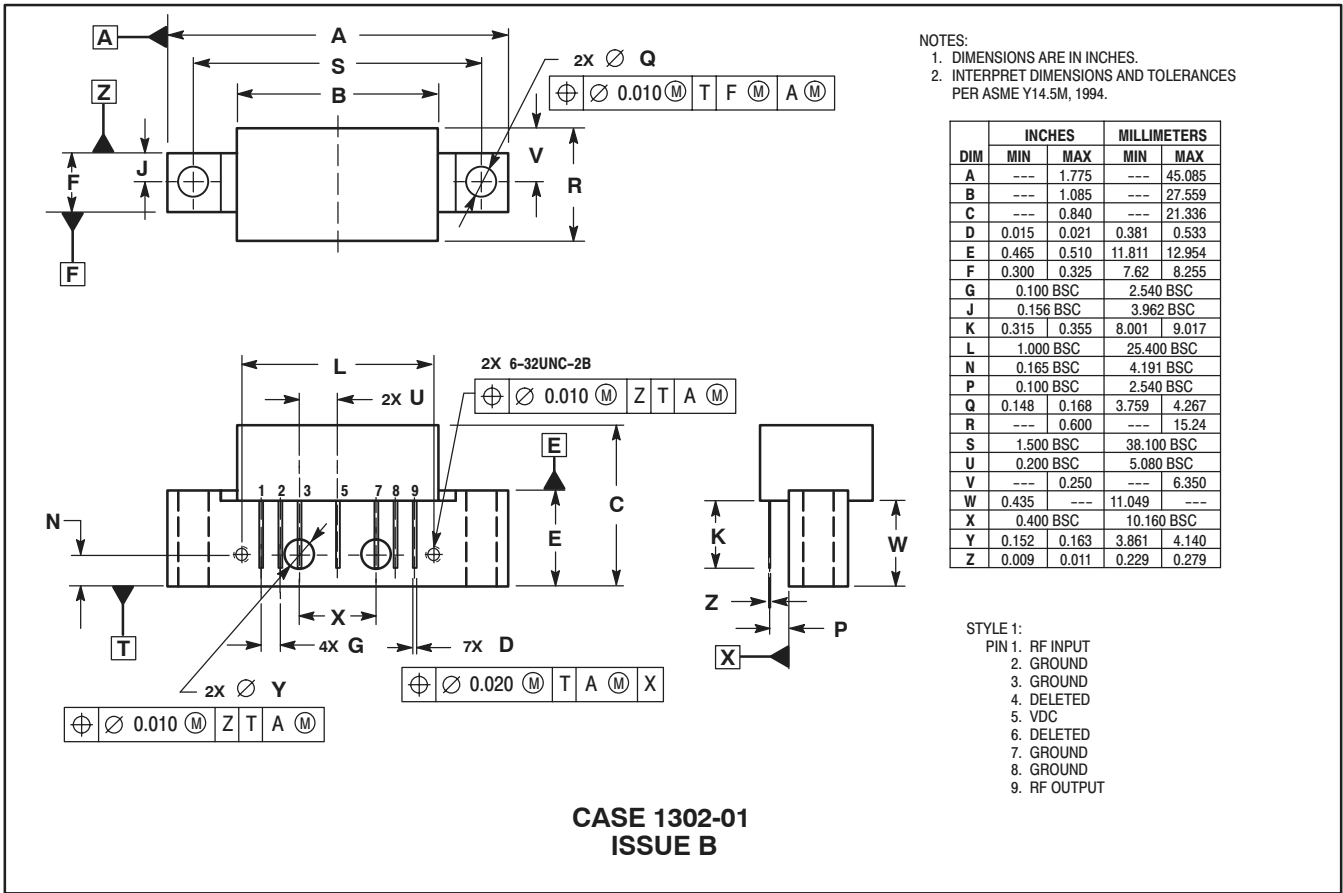
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ELECTRICAL CHARACTERISTICS — continued ($V_{CC} = 24$ Vdc, $T_C = +30^\circ\text{C}$, 75 Ω system unless otherwise noted)

Characteristic		Symbol	Min	Typ	Max	Unit
Composite Second Order ($V_{out} = +44$ dBmV/ch., Worst Case)	79-Channel FLAT	CSO_{79}	—	-65	-57	dBc
($V_{out} = +44$ dBmV/ch., Worst Case)	112-Channel FLAT	CSO_{112}	—	-55	-50	
Cross Modulation Distortion ($V_{out} = +44$ dBmV, FM = 55.25 MHz)	79-Channel FLAT	XMD_{79}	—	-63	-60	dBc
($V_{out} = +44$ dBmV, FM = 55.25 MHz)	112-Channel FLAT	XMD_{112}	—	-56	-53	
Composite Triple Beat ($V_{out} = +44$ dBmV/ch., Worst Case)	79-Channel FLAT	CTB_{79}	—	-64	-62	dBc
($V_{out} = +44$ dBmV/ch., Worst Case)	112-Channel FLAT	CTB_{112}	—	-54	-52	
Noise Figure	50 MHz	NF	—	3.5	4.5	dB
	550 MHz		—	4.5	—	
	750 MHz		—	5	6	
DC Current		I_{DC}	310	325	350	mA

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PACKAGE DIMENSIONS



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