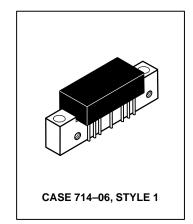
The RF Line

110-Channel (750 MHz) CATV Line Extender Amplifier

- Specified for 110-Channel Performance
- Broadband Power Gain @ f = 40-750 MHz $G_p = 24 \text{ dB (Typ)}$
- Broadband Noise Figure
 NF = 7 dB (Max) @ 750 MHz
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization
- 7 GHz fT Ion-Implanted Transistors

MHW7242

24 dB GAIN 750 MHz 110-CHANNEL CATV AMPLIFIER



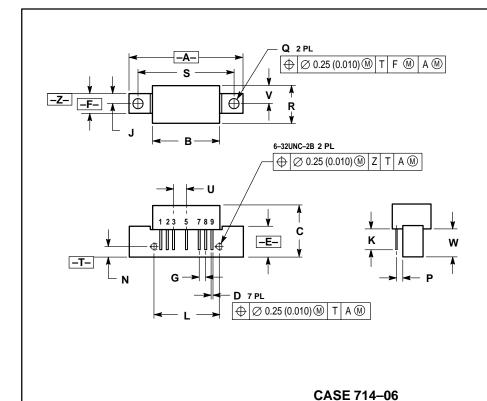
MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V _{in}	+55	dBmV
DC Supply Voltage	Vcc	+28	Vdc
Operating Case Temperature Range	TC	-20 to +100	°C
Storage Temperature Range	T _{stg}	-40 to +100	°C

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

Characteristic		Symbol	Min	Тур	Max	Unit
Frequency Range		BW	40	_	750	MHz
Power Gain	50 MHz 750 MHz	Gp	23.2 24	24 24.7	24.8 26	dB
Slope	40-750 MHz	S	0	0.7	2	dB
Gain Flatness (40-750 MHz, Peak To Valley)		_	_	0.4	0.8	dB
Return Loss — Input/Output (Z ₀ = 75 Ohms)	@ 40 MHz @ f > 40 MHz (Derate)	IRL/ORL	20 —	_ _	— 0.007	dB dB/MHz
Composite Second Order (V _{OUt} = +40 dBmV/ch., Worst Case)		CSO ₁₁₀	_	-65	-60	dBc
Cross Modulation Distortion @ Ch 2 (V _{OUt} = +40 dBmV/ch., FM = 55 MHz)	110-Channel FLAT	XMD ₁₁₀	_	-63	-60	dBc
Composite Triple Beat (V _{Out} = +40 dBmV/ch., Worst Case)	110-Channel FLAT	CTB ₁₁₀	_	-63	-60	dBc
Noise Figure	50 MHz 750 MHz	NF	_ _	_	5.5 7	dB
DC Current		IDC	280	_	350	mA

PACKAGE DIMENSIONS



NOTES

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

	INC	HES	MILLIMETERS		
DIM	MIN	MAX	MIN	MAX	
Α		1.775		45.08	
В		1.085		27.56	
С		0.840		21.34	
D	0.018	0.022	0.46	0.56	
Е	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	0.165 BSC		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		
٧	0.280	BSC	7.11 BSC		
W	0.435	0.450	11.05	11.43	

PIN 1. RF INPUT 2. GROUND

- GROUND
 DELETED
- 5 VDC
- 6. DELETED 7. GROUND 8. GROUND
- 9. RF OUTPUT

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