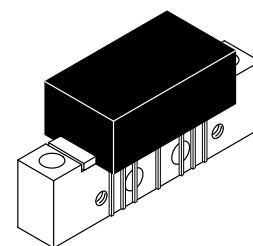


# The RF Line 110-Channel (750 MHz) CATV Line Extender Amplifier

- 24 V Supply Voltage
- Specified for 110-Channel Performance
- Typical Noise Figure  
NF = 5.5 dB @ 750 MHz
- All Gold Metallization
- Improved CTB Performance over Previous Versions

**MHW7272A**

**27 dB GAIN  
750 MHz  
110-CHANNEL  
CATV AMPLIFIER**



**CASE 714Y-03, STYLE 1**

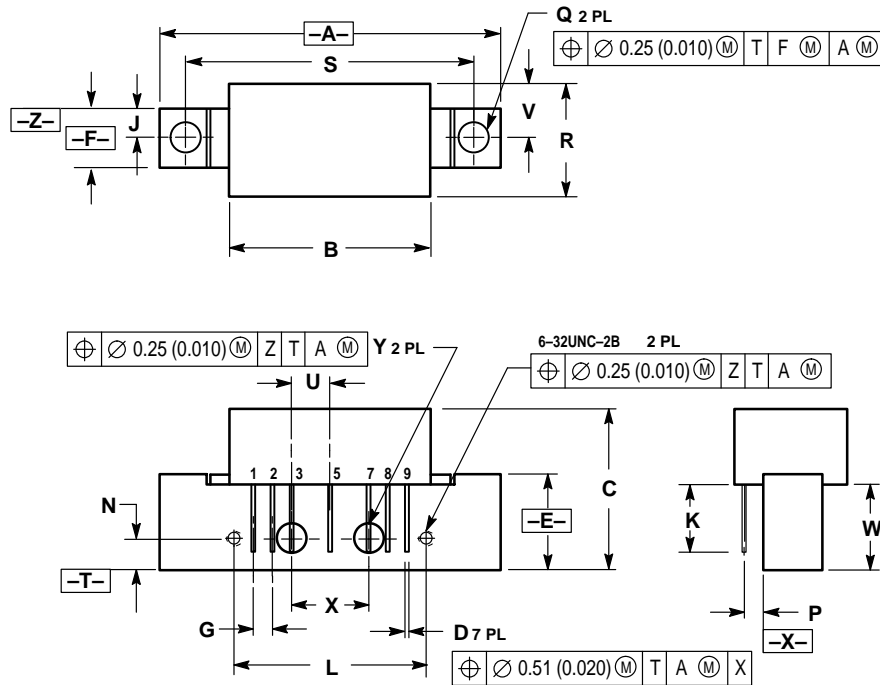
## MAXIMUM RATINGS

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 $\Omega$ system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	750	MHz
Power Gain 50 MHz 750 MHz	$G_p$	26.2 27	27.2 27.7	27.8 29	dB
Slope 40-750 MHz	S	0	0.7	1.5	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) 110-Channel FLAT	$CSO_{110}$	—	-70	-64	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	$CTB_{110}$	—	-68	-64	dBc
Noise Figure 50 MHz 750 MHz	NF	— —	— 5.5	5.5 6.5	dB
DC Current ( $V_{DC} = 24$ V, $T_C = 30^\circ\text{C}$ )	$I_{DC}$	280	310	350	mA

# PACKAGE DIMENSIONS



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

DIM	INCHES		MILLIMETERS	
	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	—	4.19 BSC	—
P	0.100 BSC	—	2.54 BSC	—
Q	0.148	0.168	3.76	4.27
R	—	0.600	—	15.24
S	1.500 BSC	—	38.10 BSC	—
U	0.200 BSC	—	5.08 BSC	—
V	—	0.250	—	6.35
W	0.435	0.450	11.05	11.43
X	0.400 BSC	—	10.16 BSC	—
Y	0.152	0.163	3.85	4.15

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

## CASE 714Y-03 ISSUE D

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