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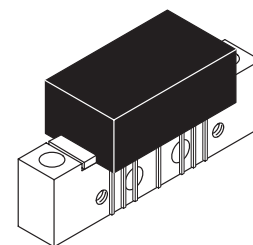
**MHW8222**

## The RF Line 128-Channel (860 MHz) CATV Amplifier

The MHW8222 is designed specifically for up to 860 MHz CATV systems as amplifiers in trunk and line extender applications. These amplifiers feature ion-implanted, arsenic emitter transistors and an all gold metallization system.

- Specified for 128-Channel Performance
- Broadband Power Gain — @ f = 40–860 MHz  
G<sub>p</sub> = 22.3 dB Typ @ 860 MHz
- Broadband Noise Figure  
NF = 6.4 dB Typ
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization

22 dB GAIN  
860 MHz  
128 CHANNEL  
CATV AMPLIFIER



CASE 714Y-03, STYLE 1

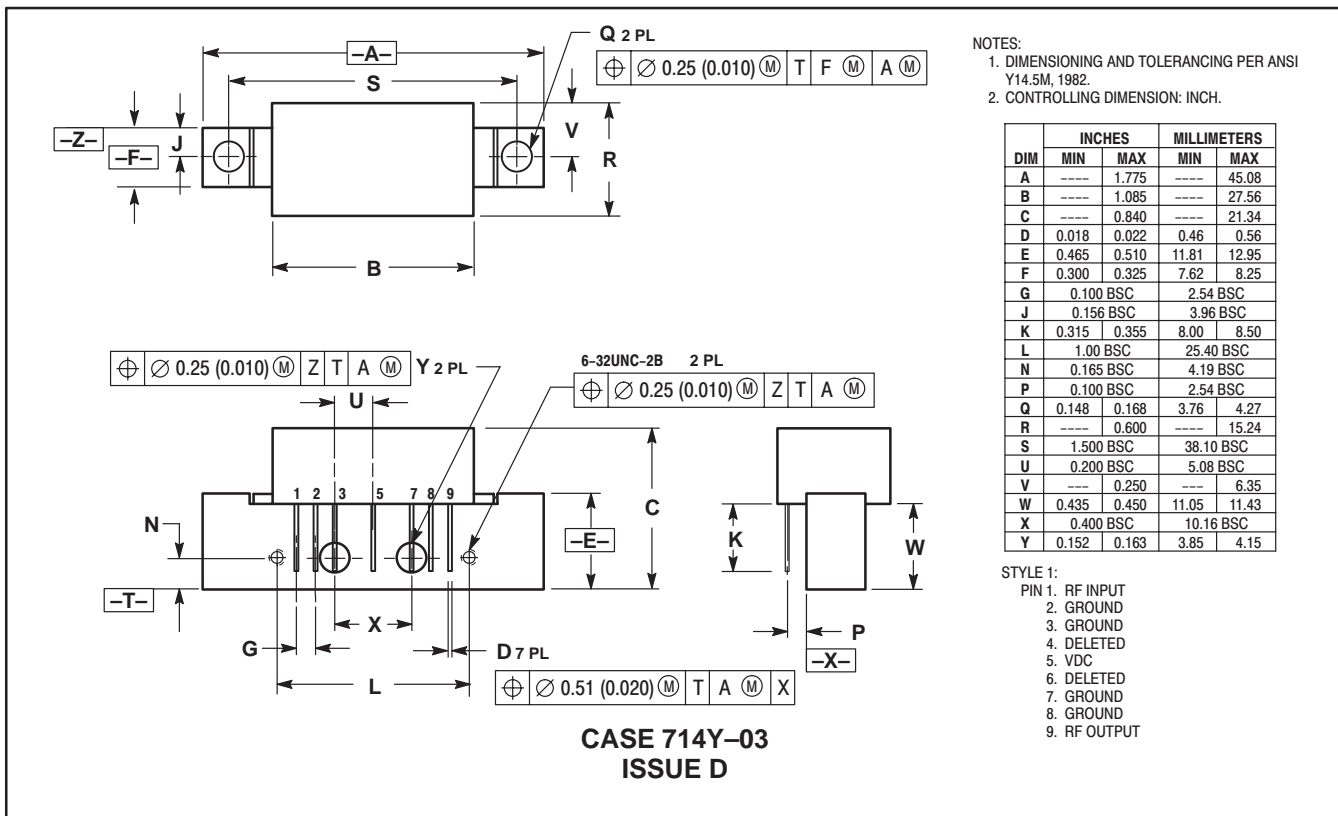
### ABSOLUTE MAXIMUM RATINGS

Rating	Symbol	Value	Unit
DC Supply Voltage	V <sub>CC</sub>	+28	Vdc
RF Input Voltage (Single Tone)	V <sub>in</sub>	+70	dBmV
Operating Case Temperature Range	T <sub>C</sub>	-20 to +100	°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +100	°C

### ELECTRICAL CHARACTERISTICS (V<sub>CC</sub> = 24 Vdc, T<sub>C</sub> = +30°C, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	860	MHz
Power Gain f = 50 MHz f = 860 MHz	G <sub>p</sub>	20.8 21.8	21.5 22.3	22.2 24	dB
Slope (f = 40–860 MHz)	S	0	1	2	—
Gain Flatness (Peak To Valley) (f = 40–860 MHz)	—	—	0.4	0.8	—
Input/Output Return Loss @ f = 40 MHz	IRL/ORL	20	24	—	dB
Derate Return Loss @ f > 40 MHz	RLD	—	—	0.009	dB/MHz
Composite Second Order (V <sub>out</sub> = +38 dBmV/ch; 128 Channels)	CSO <sub>128</sub>	—	-63	-56	dB
Cross Modulation Distortion (V <sub>out</sub> = +38 dBmV/ch, 128-Channel @ F <sub>m</sub> = 55.25 MHz)	XMD <sub>128</sub>	—	-68	-60	dBc
Composite Triple Beat (V <sub>out</sub> = +38 dBmV/ch, 128-Channels, Worst Case)	CTB <sub>128</sub>	—	-62	-60	dBc
Noise Figure f = 50 MHz f = 860 MHz	NF	— —	3.6 6.4	5 7.5	dB
DC Current	I <sub>DC</sub>	180	220	240	mA

### PACKAGE DIMENSIONS



ARCHIVE INFORMATION

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