

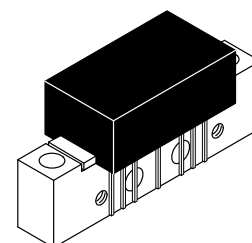
The RF Line

128-Channel 860 MHz CATV Amplifier

MHW8182A

- Specified for 77 and 128-Channel Performance
- Broadband Power Gain — @ f = 860 MHz
G_p = 18.9 dB (Typ)
- Broadband Noise Figure
NF = 5.5 dB (Typ) @ 860 MHz
- All Gold Metallization
- 7 GHz f_T Ion-Implanted Transistors
- Improved Ruggedness

18 dB GAIN
860 MHz
128-CHANNEL
CATV AMPLIFIER



CASE 714Y-03, STYLE 1

MAXIMUM RATINGS

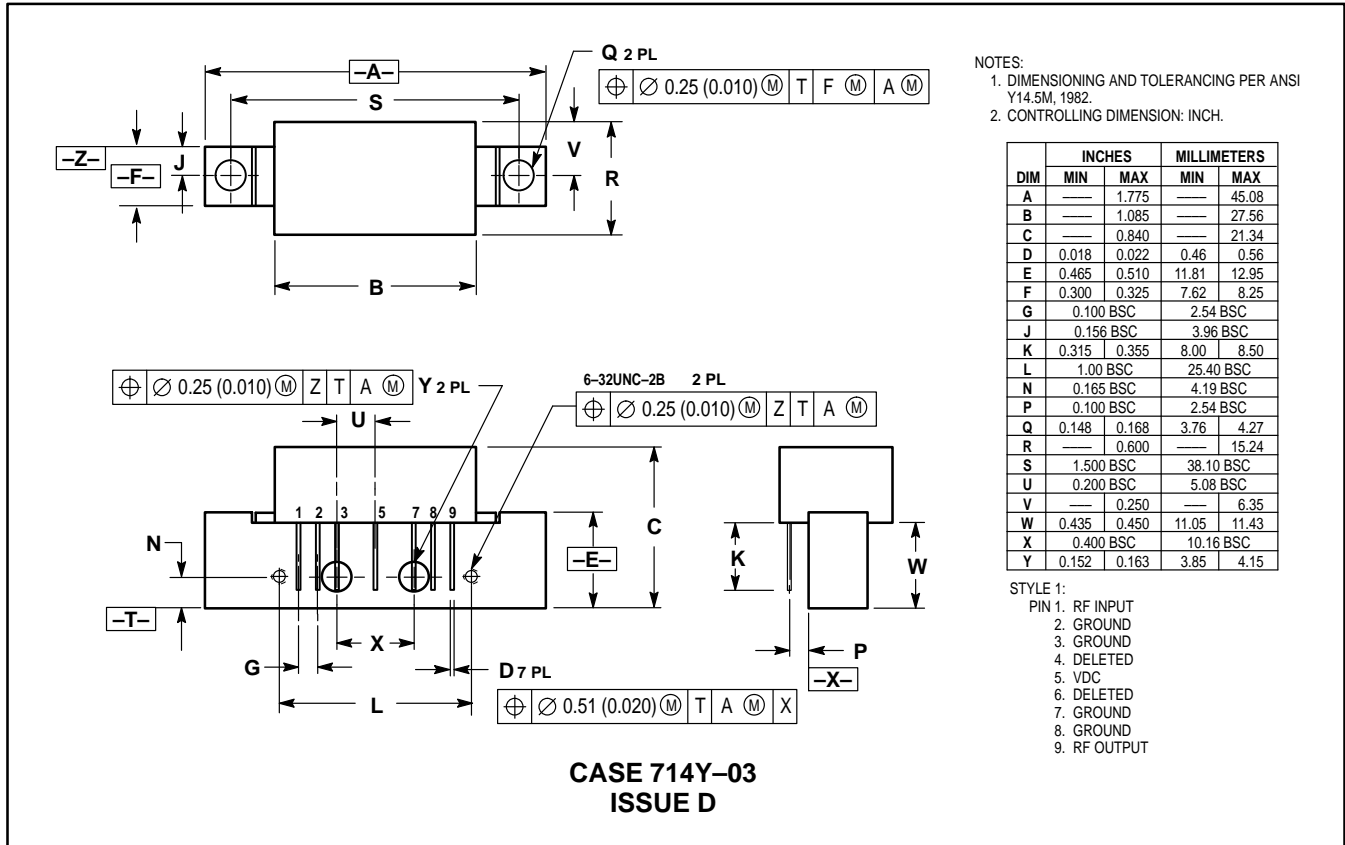
Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V _{in}	+70	dBmV
DC Supply Voltage	V _{CC}	+28	Vdc
Operating Case Temperature Range	T _C	-20 to +100	°C
Storage Temperature Range	T _{stg}	-40 to +100	°C

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

Characteristic		Symbol	Min	Typ	Max	Unit
Frequency Range		BW	40	—	860	MHz
Power Gain	50 MHz 860 MHz	G _p	17.6 18.2	18.3 18.9	18.8 20.5	dB
Slope	40–860 MHz	S	0	0.7	2.5	dB
Gain Flatness (40–860 MHz, Peak to Valley)		—	—	0.3	0.6	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} = +38 dBmV/ch., Worst Case) (V _{out} = +44 dBmV/ch., Worst Case)	CSO ₁₂₈ CSO ₇₇	— —	-73 -70	-63 —	dBc
Cross Modulation Distortion @ Ch 2	(V _{out} = +38 dBmV/ch., FM = 55 MHz) (V _{out} = +44 dBmV/ch., FM = 55 MHz)	XMD ₁₂₈ XMD ₇₇	— —	-68 -61	-64 —	dBc
Composite Triple Beat	(V _{out} = +38 dBmV/ch., Worst Case) (V _{out} = +44 dBmV/ch., Worst Case)	CTB ₁₂₈ CTB ₇₇	— —	-66 -63	-62 —	dBc
Noise Figure	50 MHz 550 MHz 750 MHz 860 MHz	NF	— — — —	4.0 4.5 5.0 5.5	5.0 — — 8.0	dB
DC Current (V _{DC} = 24 V, T _C = 30°C)		I _{DC}	180	235	240	mA



PACKAGE DIMENSIONS



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