

The RF Line

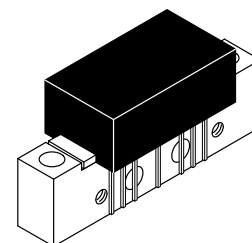
High Output Mirror Power Doubler

860 MHz CATV Amplifier

MHW8185R

- Specified for 77, 110 and 128-Channel Performance
- Broadband Power Gain — @ f = 860 MHz
G_p = 19.4 dB (Typ)
- Broadband Noise Figure
NF = 7 dB (Typ) @ 860 MHz
- Pin Configuration Mirrors that of MHW8185
- Typical CTB @ 860 MHz under 128-Channel FLAT Loading = -67 dBc
- All Gold Metallization
- 7 GHz f_T Ion-Implanted Transistors

19.4 dB GAIN
860 MHz
128-CHANNEL
CATV AMPLIFIER



CASE 714Y-03, STYLE 2

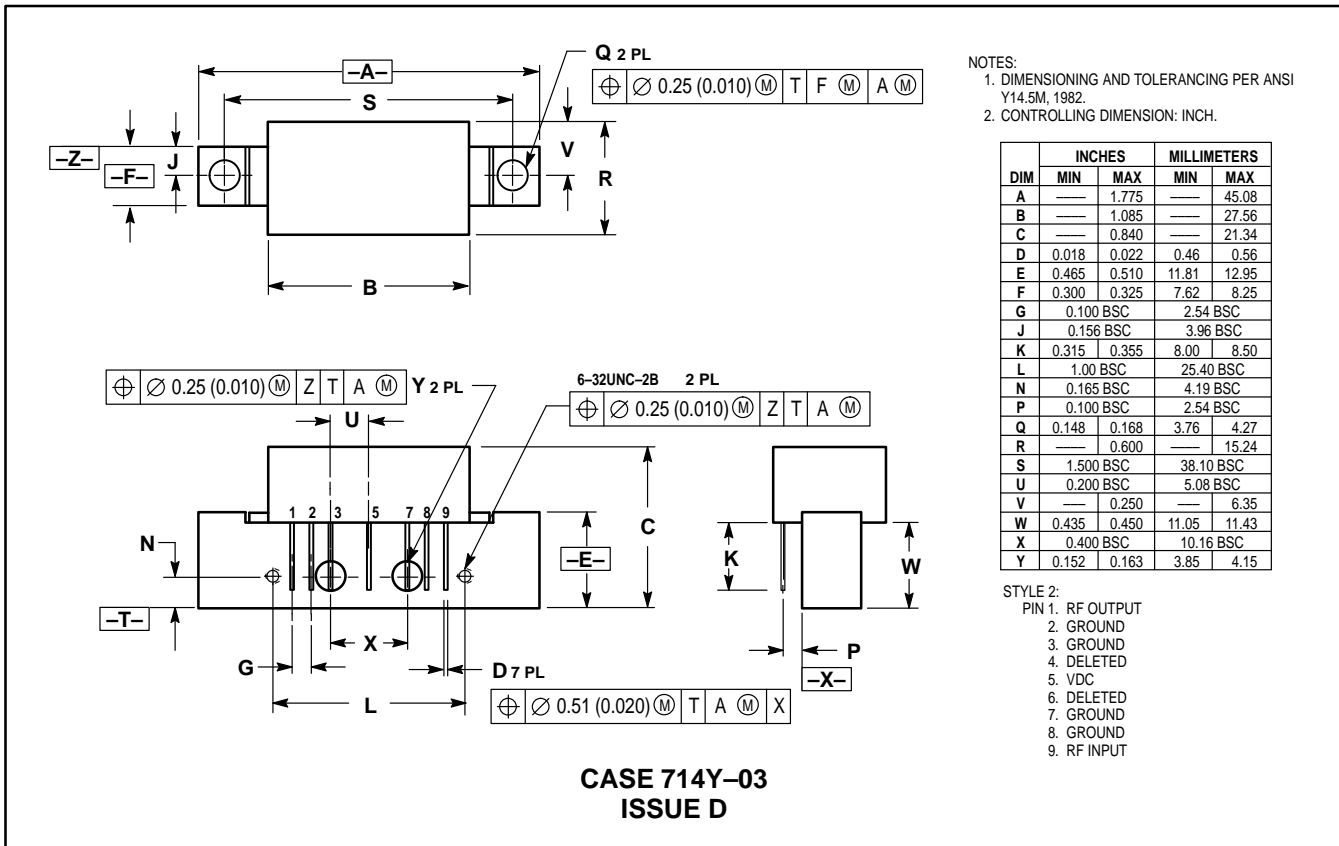
MAXIMUM RATINGS

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	G _p	18.3	18.8	19.3	dB
		19	19.4	20.5	
Slope	S	0	.5	1.5	dB
Gain Flatness (40-860 MHz, Peak to Valley)	—	—	0.3	1.0	dB
Return Loss — Input/Output (Z ₀ = 75 Ohms)	IRL/ORL				
		19	—	—	dB
		—	—	0.006	dB/MHz
Composite Second Order					dBc
(V _{out} = +40 dBmV/ch., Worst Case)	128-Channel FLAT	CSO ₁₂₈	—	-70	-62
(V _{out} = +44 dBmV/ch., Worst Case)	110-Channel FLAT	CSO ₁₁₀	—	-72	—
	77-Channel FLAT	CSO ₇₇	—	-80	—
Cross Modulation Distortion @ Ch 2					dBc
(V _{out} = +40 dBmV/ch., FM = 55 MHz)	128-Channel FLAT	XMD ₁₂₈	—	-72	-64
(V _{out} = +44 dBmV/ch., FM = 55 MHz)	110-Channel FLAT	XMD ₁₁₀	—	-66	—
	77-Channel FLAT	XMD ₇₇	—	-69	—
Composite Triple Beat					dBc
(V _{out} = +40 dBmV/ch., Worst Case)	128-Channel FLAT	CTB ₁₂₈	—	-67	-64
(V _{out} = +44 dBmV/ch., Worst Case)	110-Channel FLAT	CTB ₁₁₀	—	-64	—
	77-Channel FLAT	CTB ₇₇	—	-70	—
Noise Figure	NF	—	5.0	6.0	dB
		—	5.8	—	
		—	6.2	—	
		—	7.0	8.0	
DC Current (V _{DC} = 24 V, T _C = 30°C)	I _{DC}	365	400	435	mA

PACKAGE DIMENSIONS



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