

The RF Line

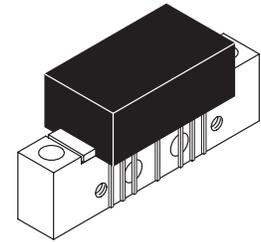
High Output Mirror Power Doubler

750 MHz CATV Amplifier

MHW7185CR

19.4 dB GAIN
750 MHz
110-CHANNEL
CATV AMPLIFIER

- Specified for 77 and 110-Channel Performance
- Broadband Power Gain — @ f = 750 MHz
 $G_p = 19.4$ dB (Typ)
- Broadband Noise Figure
 $NF = 6.2$ dB (Typ) @ 750 MHz
- Pin Configuration Mirrors that of MHW7185C
- Typical CTB @ 750 MHz under 110-Channel FLAT Loading = -64 dBc



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

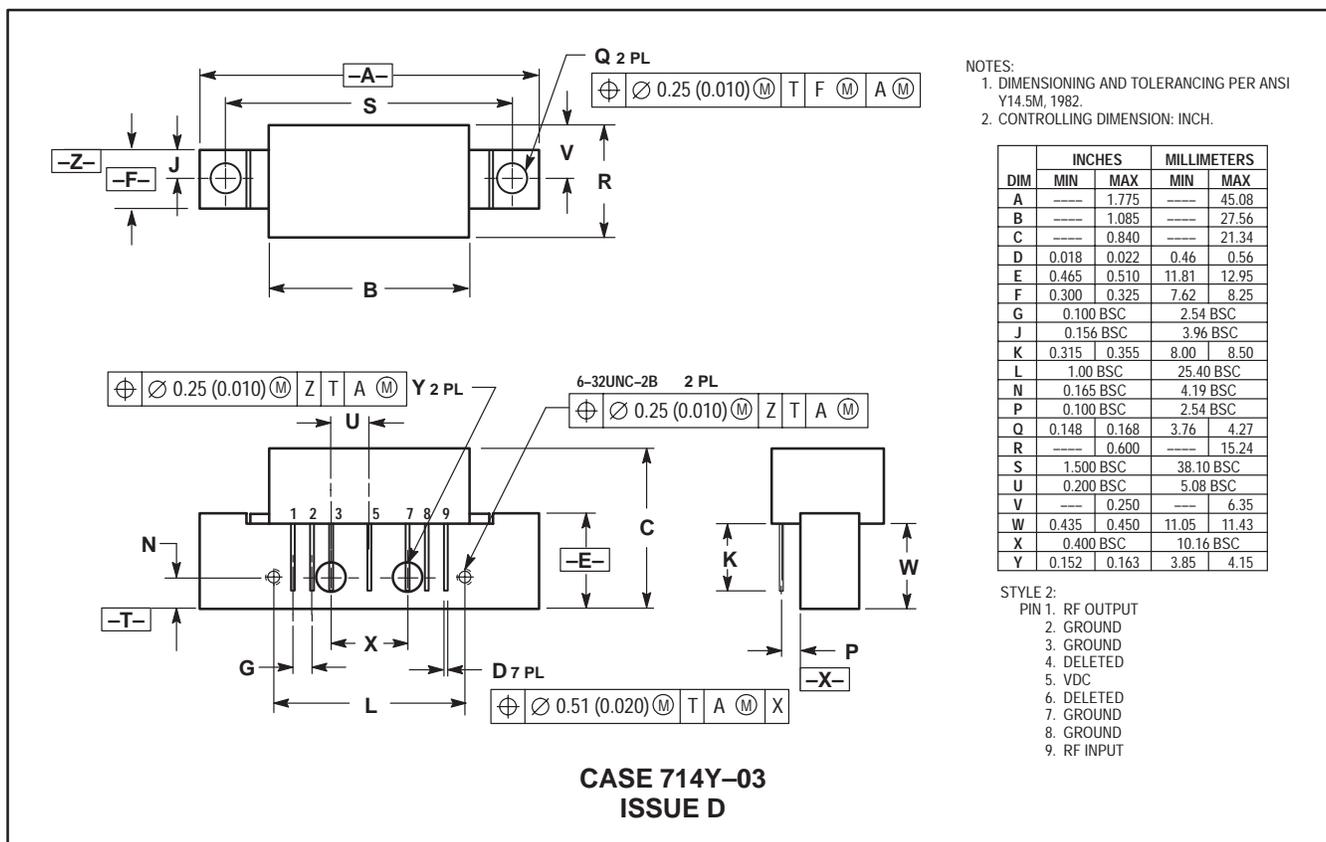
ELECTRICAL CHARACTERISTICS ($V_{CC} = 24$ Vdc, $T_C = +30^\circ\text{C}$, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	750	MHz
Power Gain	G_p	18.3 19	18.8 19.4	19.3 20	dB
Slope	S	0	.5	1.0	dB
Gain Flatness (40-750 MHz, Peak to Valley)	—	—	0.3	0.6	dB
Return Loss — Input/Output ($Z_0 = 75$ Ohms)	IRL/ORL	19	—	—	dB
		—	—	0.006	dB/MHz
Composite Second Order ($V_{out} = +44$ dBmV/ch., Worst Case)	CSO_{110} CSO_{77}	— —	-72 -80	-64 -68	dBc
Cross Modulation Distortion @ Ch 2 ($V_{out} = +44$ dBmV/ch., FM = 55 MHz)	XMD_{110} XMD_{77}	— —	-66 -70	-63 -68	dBc
Composite Triple Beat ($V_{out} = +44$ dBmV/ch., Worst Case)	CTB_{110} CTB_{77}	— —	-64 -71	-62 -69	dBc
Noise Figure	NF	— — —	5.0 5.3 6.2	6.0 — 7.5	dB
DC Current ($V_{DC} = 24$ V, $T_C = 30^\circ\text{C}$)	I_{DC}	365	400	435	mA

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PACKAGE DIMENSIONS



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