

The RF Line

High Output Mirror Power Doubler 750 MHz CATV Amplifier

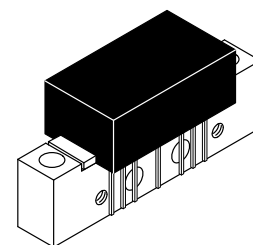
MHW7185CR

**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

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

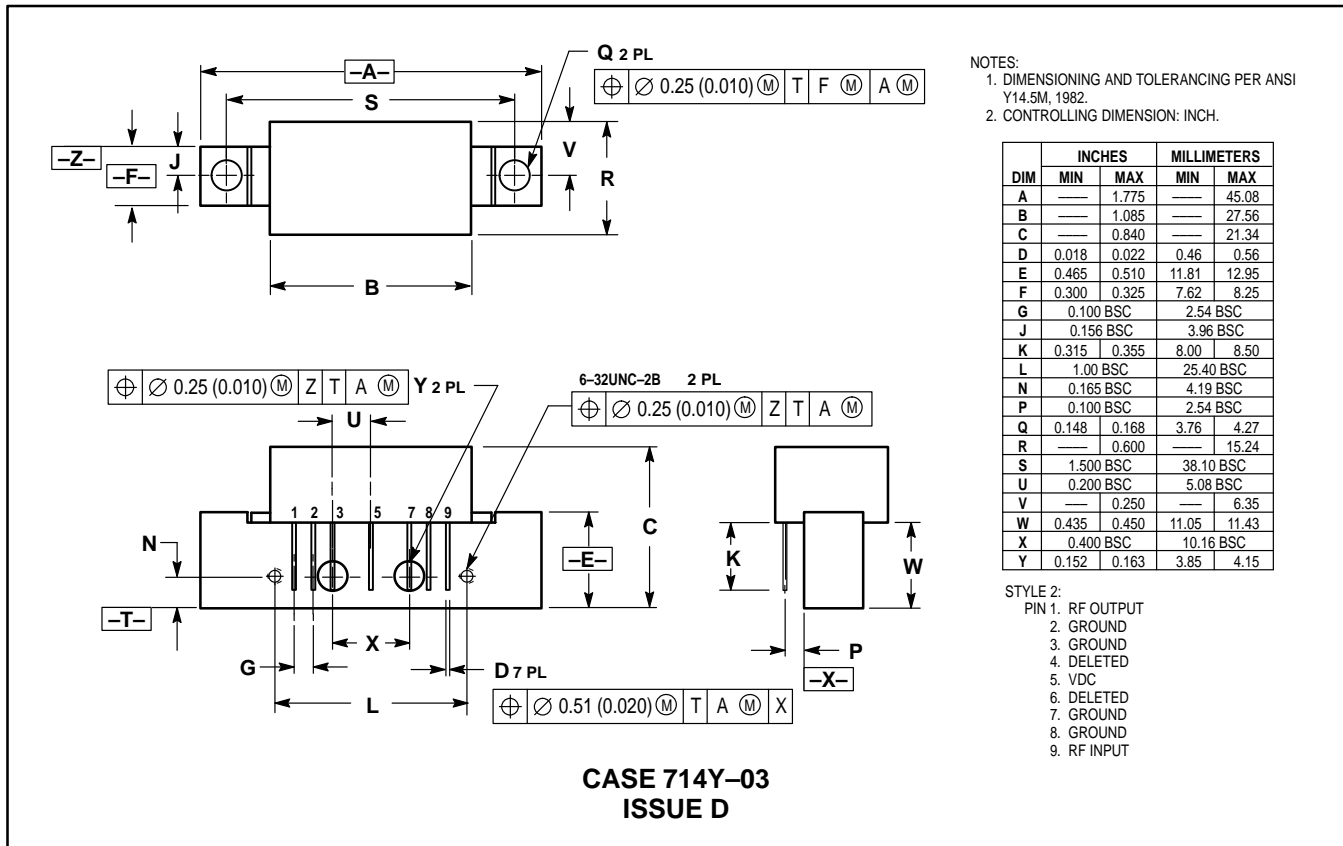


CASE 714Y-03, STYLE 2

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	—	750	MHz
Power Gain 50 MHz 750 MHz	G _p	18.3 19	18.8 19.4	19.3 20	dB
Slope 40-750 MHz	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) @ 40 MHz @ f > 40 MHz (Derate)	IRL/ORL	19 —	— —	— 0.006	dB dB/MHz
Composite Second Order (V _{out} = +44 dBmV/ch., Worst Case) 110-Channel FLAT 77-Channel FLAT	CSO ₁₁₀ CSO ₇₇	— —	-72 -80	-64 -68	dBc
Cross Modulation Distortion @ Ch 2 (V _{out} = +44 dBmV/ch., FM = 55 MHz) 110-Channel FLAT 77-Channel FLAT	XMD ₁₁₀ XMD ₇₇	— —	-66 -70	-63 -68	dBc
Composite Triple Beat (V _{out} = +44 dBmV/ch., Worst Case) 110-Channel FLAT 77-Channel FLAT	CTB ₁₁₀ CTB ₇₇	— —	-64 -71	-62 -69	dBc
Noise Figure 50 MHz 550 MHz 750 MHz	NF	— — —	5.0 5.3 6.2	6.0 — 7.5	dB
DC Current (V _{DC} = 24 V, T _C = 30°C)	I _{DC}	365	400	435	mA

PACKAGE DIMENSIONS



Motorola reserves the right to make changes without further notice to any products herein. Motorola makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Motorola assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters which may be provided in Motorola data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Motorola does not convey any license under its patent rights nor the rights of others. Motorola products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Motorola product could create a situation where personal injury or death may occur. Should Buyer purchase or use Motorola products for any such unintended or unauthorized application, Buyer shall indemnify and hold Motorola and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Motorola was negligent regarding the design or manufacture of the part. Motorola and are registered trademarks of Motorola, Inc. Motorola, Inc. is an Equal Opportunity/Affirmative Action Employer.

Mfax is a trademark of Motorola, Inc.

How to reach us:

USA/EUROPE/Locations Not Listed: Motorola Literature Distribution;
 P.O. Box 5405, Denver, Colorado 80217. 1-303-675-2140 or 1-800-441-2447

JAPAN: Nippon Motorola Ltd.: SPD, Strategic Planning Office, 141,
 4-32-1 Nishi-Gotanda, Shagawa-ku, Tokyo, Japan. 03-5487-8488

Customer Focus Center: 1-800-521-6274

Mfax™: RMFAX0@email.sps.mot.com – TOUCHTONE 1-602-244-6609
 Motorola Fax Back System – US & Canada ONLY 1-800-774-1848
 – http://sps.motorola.com/mfax/

ASIA/PACIFIC: Motorola Semiconductors H.K. Ltd.; 8B Tai Ping Industrial Park,
 51 Ting Kok Road, Tai Po, N.T., Hong Kong. 852-26629298

HOME PAGE: http://motorola.com/sps/

