

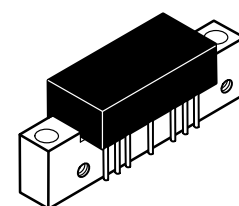
The RF Line 600 MHz CATV Amplifier Module

This module is designed specifically for 600 MHz CATV applications. Features ion-implanted arsenic emitter transistors with 7 GHz f_T and an all gold metallization system.

- Specified for 87-Channel Performance
- Broadband Power Gain — @ $f = 40-600$ MHz
 $G_p = 17.6$ dB (Min) @ 50 MHz
 18.2 dB (Min) @ 600 MHz
- Broadband Noise Figure @ 600 MHz
 $NF = 6$ dB (Max)
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization
- 7 GHz Ion-Implanted Transistors

MHW6182-6

**5TH GENERATION
18 dB GAIN
600 MHz
87-CHANNEL
CATV INPUT/OUTPUT
TRUNK AMPLIFIERS**



CASE 714-06, STYLE 1

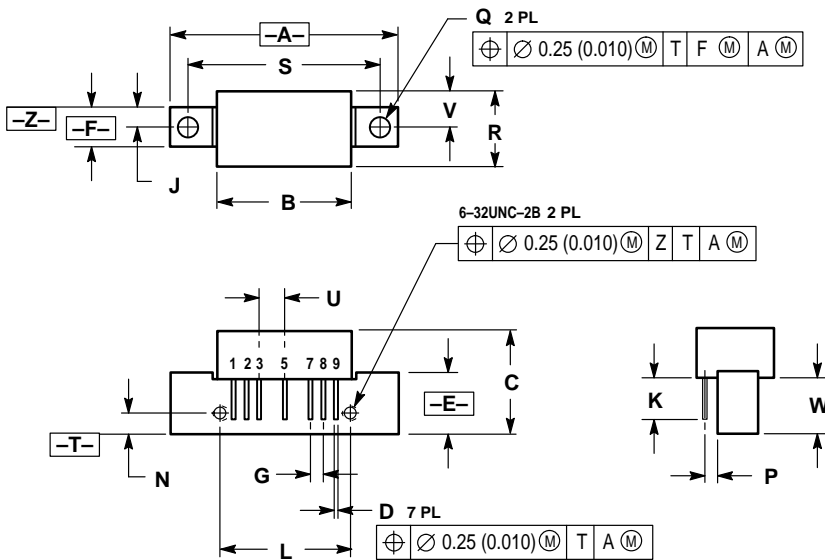
ABSOLUTE MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input	V_{in}	+60	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	—	600	MHz
Power Gain $f = 50$ MHz	G_p	17.6	18.2	18.8	dB
Power Gain $f = 600$ MHz	G_p	18.2	19.2	20	dB
Slope $f = 40-600$ MHz	S	0	—	1.8	dB
Gain Flatness (Peak to Valley) $f = 40-600$ MHz	—	—	0.2	0.6	dB
Return Loss — Input/Output ($Z_0 = 75$ Ohms) $f = 40-600$ MHz	IRL/ORL	18	—	—	dB
Composite Second Order ($V_{out} = +44$ dBmV/Ch) 87-Channel FLAT	CSO ₈₇	—	—	-56	dB
Cross Modulation Distortion ($V_{out} = +44$ dBmV/Ch, $F_m = 55$ MHz) 87-Channel FLAT	XMD ₈₇	—	—	-55	dB
Composite Triple Beat ($V_{out} = +44$ dBmV/Ch) 87-Channel FLAT	CTB ₈₇	—	—	-57	dB
Noise Figure $f = 50$ MHz $f = 600$ MHz	NF	—	—	5 6	dB
DC Current ($V_{DC} = 24$ Vdc, $T_C = 30^\circ\text{C}$)	I_{DC}	180	210	240	mA

PACKAGE DIMENSIONS



- NOTES:
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	—	1.775	—	45.08
B	—	1.085	—	27.56
C	—	0.840	—	21.34
D	0.018	0.022	0.46	0.56
E	0.465	0.510	11.81	12.95
F	0.300	0.325	7.62	8.25
G	0.100 BSC	—	2.54 BSC	—
J	0.156 BSC	—	3.96 BSC	—
K	0.315	0.355	8.00	8.50
L	1.00 BSC	—	25.40 BSC	—
N	0.165 BSC	—	4.10 BSC	—
P	0.100 BSC	—	2.54 BSC	—
Q	0.148	0.168	3.76	4.27
R	—	0.595	—	15.11
S	1.500 BSC	—	38.10 BSC	—
U	0.200 BSC	—	5.08 BSC	—
V	0.280 BSC	—	7.11 BSC	—
W	0.435	0.450	11.05	11.43

- STYLE 1:
 PIN 1: RF INPUT
 2: GROUND
 3: GROUND
 4: DELETED
 5: VDC
 6: DELETED
 7: GROUND
 8: GROUND
 9: RF OUTPUT

**CASE 714-06
 ISSUE K**

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How to reach us:
USA / EUROPE: Motorola Literature Distribution;
 P.O. Box 20912; Phoenix, Arizona 85036. 1-800-441-2447

JAPAN: Nippon Motorola Ltd.; Tatsumi-SPD-JLDC, Toshikatsu Otsuki,
 6F Seibu-Butsuryu-Center, 3-14-2 Tatsumi Koto-Ku, Tokyo 135, Japan. 03-3521-8315

MFAX: RMFAX0@email.sps.mot.com - TOUCHTONE (602) 244-6609
INTERNET: http://Design-NET.com

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



MHW6182-6/D

