Product Is on Lifetime Buy.
The next generation of higher performance products are in development. Visit our online Selector Guides (http://mot–sps.com/rf/sg/sg.html) for scheduled introduction dates.

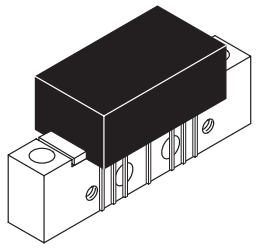
MHW8222

The RF Line
128-Channel (860 MHz) CATV Amplifier

22 dB GAIN
860 MHz
128 CHANNEL
CATV AMPLIFIER

The MHW8222 is designed specifically for up to 860 MHz CATV systems as amplifiers in trunk and line extender applications. These amplifiers feature ion–implanted, arsenic emitter transistors and an all gold metallization system.

- Specified for 128–Channel Performance
- Broadband Power Gain — @ f = 40–860 MHz
  G_p = 22.3 dB Typ @ 860 MHz
- Broadband Noise Figure
  NF = 6.4 dB Typ
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization



CASE 714Y–03, STYLE 1

ARCHIVE INFORMATION

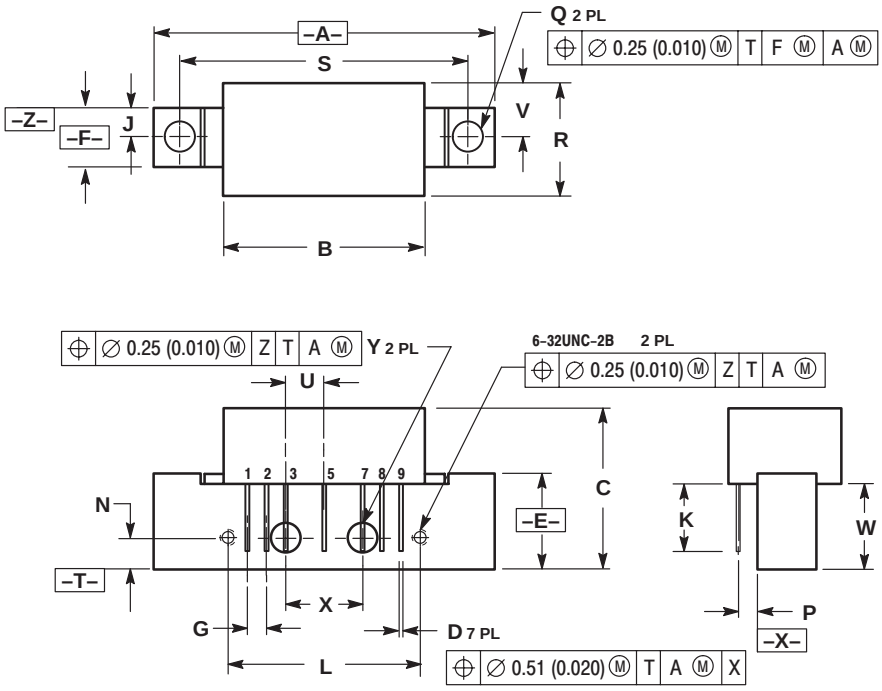
ABSOLUTE MAXIMUM RATINGS

Rating	Symbol	Value	Unit
DC Supply Voltage	V_{CC}	+28	Vdc
RF Input Voltage (Single Tone)	V_{in}	+70	dBmV
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	f = 50 MHz f = 860 MHz	G_p	20.8 21.8	21.5 22.3	22.2 24	dB
Slope (f = 40–860 MHz)		S	0	1	2	—
Gain Flatness (Peak To Valley)	(f = 40–860 MHz)	—	—	—	0.4	0.8	—
Input/Output Return Loss @ f = 40 MHz		IRL/ORL	20	24	—	dB
Derate Return Loss @ f > 40 MHz		RLD	—	—	0.009	dB/MHz
Composite Second Order (V_{out} = +38 dBmV/ch; 128 Channels)		CSO_{128}	—	–63	–56	dB
Cross Modulation Distortion (V_{out} = +38 dBmV/ch, 128–Channel @ Fm = 55.25 MHz)		XMD_{128}	—	–68	–60	dBc
Composite Triple Beat (V_{out} = +38 dBmV/ch, 128–Channels, Worst Case)		CTB_{128}	—	–62	–60	dBc
Noise Figure	f = 50 MHz f = 860 MHz	NF	— —	3.6 6.4	5 7.5	dB
DC Current		I_{DC}	180	220	240	mA

PACKAGE DIMENSIONS



CASE 714Y–03
ISSUE D

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

	INCHES		MILLIMETERS	
DIM	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		4.19 BSC	
P	0.100 BSC		2.54 BSC	
Q	0.148	0.168	3.76	4.27
R	----	0.600	----	15.24
S	1.500 BSC		38.10 BSC	
U	0.200 BSC		5.08 BSC	
V	---	0.250	---	6.35
W	0.435	0.450	11.05	11.43
X	0.400 BSC		10.16 BSC	
Y	0.152	0.163	3.85	4.15

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

ARCHIVE INFORMATION

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

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

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

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