

MHW3342

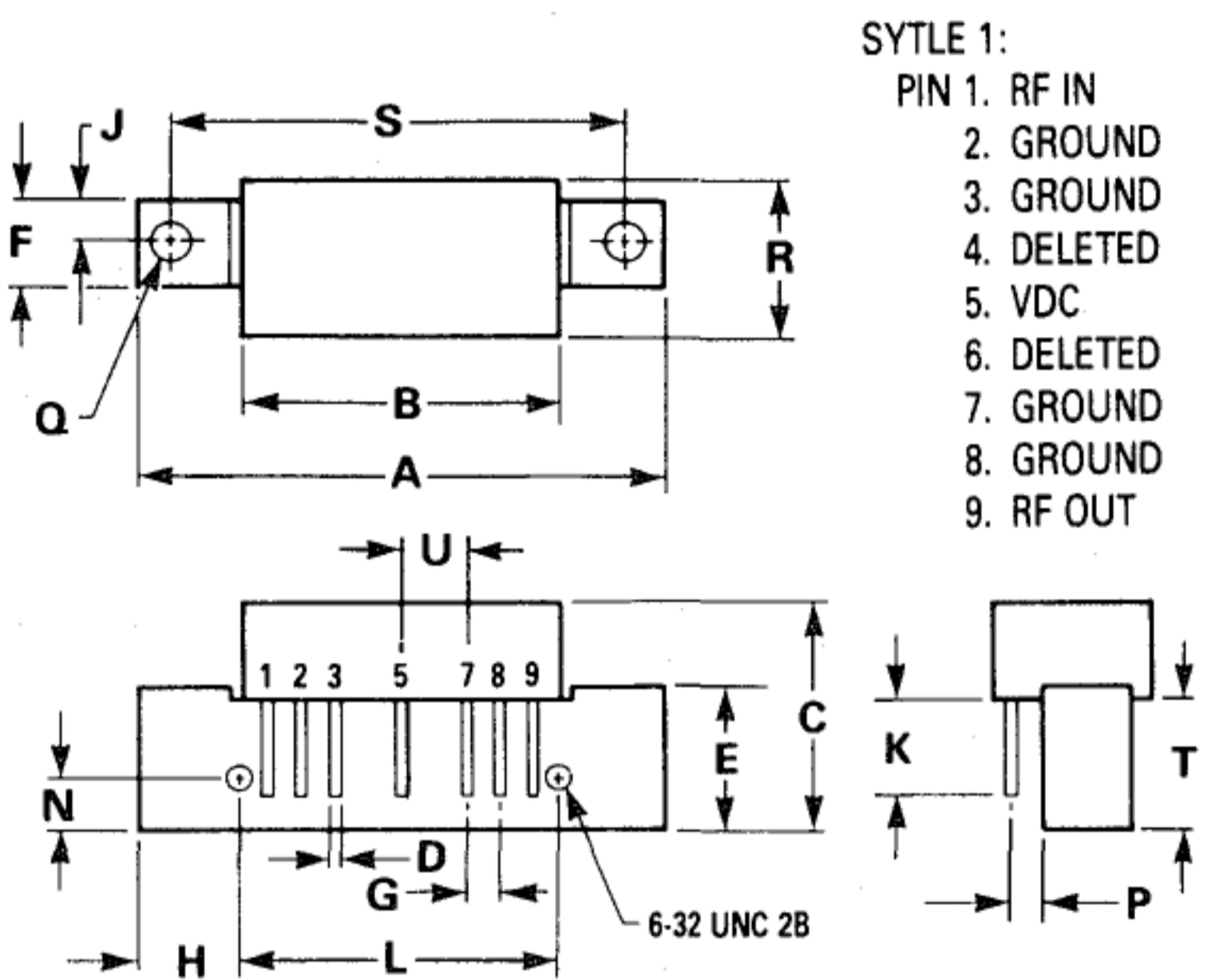
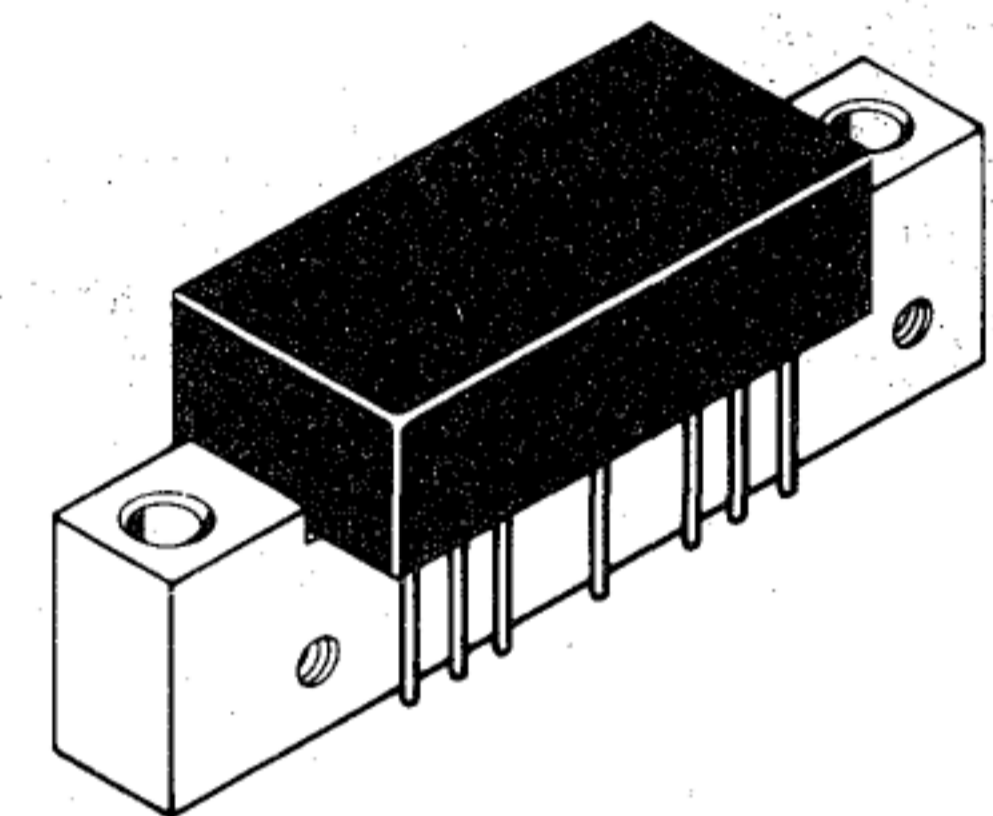
The RF Line

330 MHz CATV AMPLIFIER MODULE

... designed specifically for 330 MHz CATV applications. Features ion-implanted arsenic emitter transistors with 6.0 GHz f_T and an all gold metallization system.

- Specified for 40-Channel Performance
- Broadband Power Gain — @ $f = 40\text{--}330$ MHz
 $G_p = 34$ dB (Typ)
- Broadband Noise Figure — @ $f = 330$ MHz
 $NF = 4.5$ dB (Typ)
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization
- 6.0 GHz Ion-Implanted Transistors

34 dB GAIN
330 MHz
40-CHANNEL
CATV LINE EXTENDER
AMPLIFIERS



NOTE:
 1. MOUNTING HOLES WITHIN 0.25 mm (0.010) DIA OF TRUE POSITION AT MAXIMUM MATERIAL CONDITION.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	—	45.08	—	1.775
B	26.42	26.92	1.040	1.060
C	20.57	21.34	0.810	0.840
D	0.46	0.56	0.018	0.022
E	11.81	12.95	0.465	0.510
F	7.62	8.25	0.300	0.325
G	2.41	2.67	0.095	0.105
H	9.65	9.78	0.380	0.385
J	3.96 BSC		0.156 BSC	
K	8.00	8.50	0.315	0.335
L	25.40 BSC		1.000 BSC	
N	4.06	4.32	0.160	0.170
P	2.16	2.92	0.085	0.115
Q	3.76	4.27	0.148	0.168
R	—	15.11	—	0.595
S	38.10 BSC		1.500 BSC	
T	11.05	11.43	0.435	0.450
U	4.95	5.21	0.195	0.205

CASE 714-03

ABSOLUTE MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V_{in}	+55	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 ($V_{CC} = 24 \text{ Vdc}$, $T_A = +25^\circ\text{C}$, 75Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	330	MHz
Power Gain — 50 MHz	G_p	33	34	35	dB
Slope	S	0	+1.0	+2.0	dB
Gain Flatness	—	—	± 0.2	± 0.5	dB
Return Loss — Input/Output ($Z_0 = 75 \text{ Ohms}$)	40–450 MHz IRL/ORL	18	—	—	dB
Second Order Intermodulation Distortion ($V_{out} = +50 \text{ dBmV per ch.}$)	IMD	—	—	-68	dB
Cross Modulation Distortion ($V_{out} = +50 \text{ dBmV per ch.}$)	35-Channel FLAT	—	—	-57	dB
	40-Channel FLAT	—	—	-55	
Composite Triple Beat ($V_{out} = +50 \text{ dBmV per ch.}$)	35-Channel FLAT	—	—	-57	dB
	40-Channel FLAT	—	—	-55	
Noise Figure ($f = 330 \text{ MHz}$)	NF	—	4.5	5.5	dB
DC Current ($V_{DC} = 24 \pm 0.5 \text{ Vdc}$, $T_C = 30^\circ\text{C}$)	I_{DC}	—	300	340	mA

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