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The RF Line

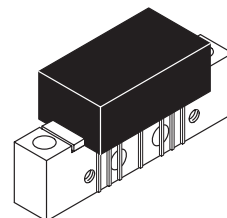
High Output Doubler 550 MHz CATV Amplifier Module

The MHW6185B is designed specifically for 550 MHz CATV applications. Features ion-implanted arsenic emitter transistors and an all gold metallization system.

- 5th Generation Die Technology
- Specified for 77-Channel Performance
- Broadband Power Gain — @ f = 40–550 MHz
 $G_p = 18.5 \text{ dB Typ @ 50 MHz}$
 $19.5 \text{ dB Typ @ 550 MHz}$
- Broadband Noise Figure
 $NF = 4.5 \text{ dB Typ @ 50 MHz}$
- Improvement in Distortion Over Conventional Hybrids
- Allows Higher Output Level Operation

MHW6185B

18 dB GAIN
550 MHz
77-CHANNEL
CATV AMPLIFIER



CASE 714Y-03, STYLE 1

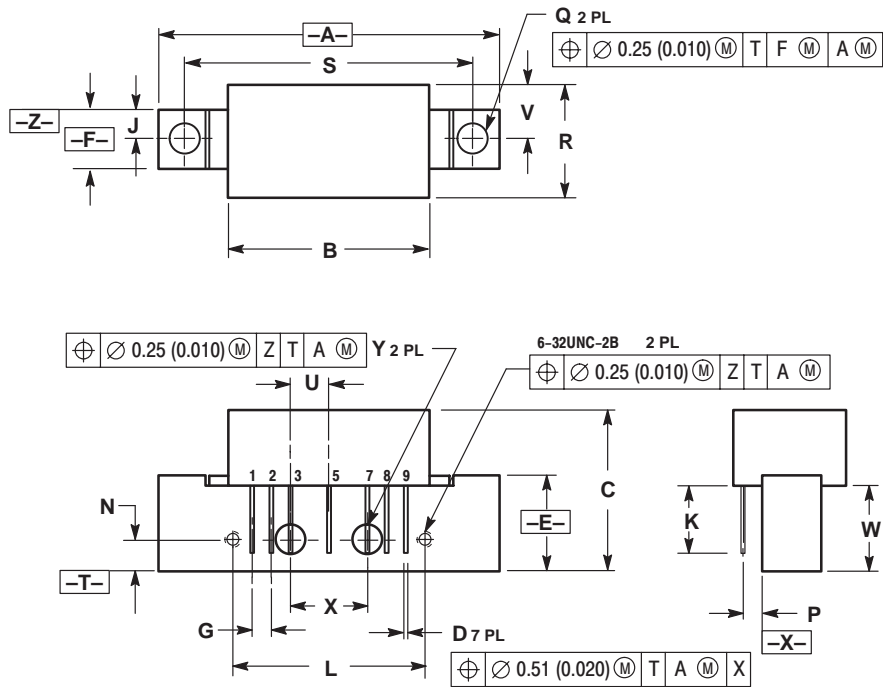
ABSOLUTE MAXIMUM RATINGS

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

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	550	MHz
Power Gain	G_p	18	18.5	19	dB
		18.8	19.5	20.5	
Slope	S	0.3	—	2.0	dB
Gain Flatness (Peak To Valley)	—	—	—	0.5	dB
Return Loss — Input/Output ($Z_0 = 75 \text{ Ohms}$)	IRL/ORL	18	—	—	dB
Composite Second Order 77 ch, ($V_{out} = +44 \text{ dBmV}$)	CSO_{77}	—	-68	-65	dB
Cross Modulation Distortion (77 ch, $V_{out} = +44 \text{ dBmV @ } F_m = 55 \text{ MHz}$)	XMD_{77}	—	-78	-68	dB
Signal-to-Triple Beat Noise (77 ch, $V_{out} = +44 \text{ dBmV}$)	CTB_{77}	—	-66	-65	dB
Noise Figure	NF	—	6.0	7.5	dB
DC Current ($V_{DC} = 24 \text{ Vdc}$, $T_C = 30^\circ\text{C}$)	I_{DC}	380	415	440	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		4.19 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

CASE 714Y-03
 ISSUE D

ARCHIVE INFORMATION

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