

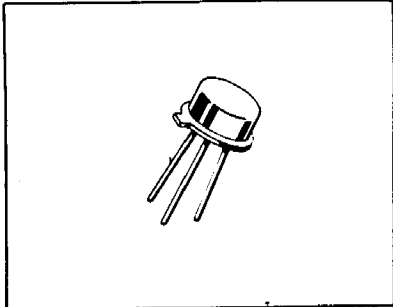
**MWA110
 MWA120
 MWA130**

**DC-400 MHz WIDEBAND
 GENERAL-PURPOSE
 HYBRID AMPLIFIERS**

WIDEBAND HYBRID AMPLIFIERS

... single stage amplifiers designed for broadband linear applications up to 400 MHz.

- Low-Cost TO-39 Type Package
- Gain 14 dB Typ
- 50 Ω Input and Output Impedance
- Fully Cascadable for Any Gain
- Thin Film Construction
- Hermetic Package
- Guaranteed Performance from -25°C to +125°C

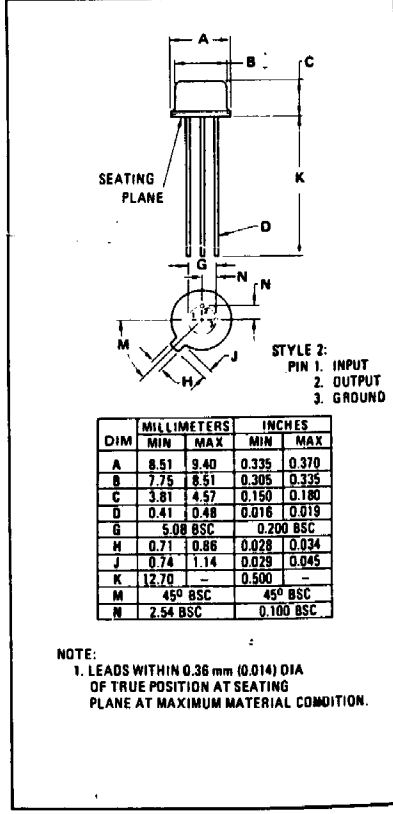


MAXIMUM RATINGS

Rating	Symbol	Value			Unit
		MWA110	MWA120	MWA130	
RF Input Power	P_{in}	100			mW
DC Supply Current	I_D	25	35	100	mA
Maximum Case Temperature	T_C	125			°C
Storage Temperature Range	T_{stg}	-65 to +200			°C

OPERATING CONDITIONS

	Symbol	2.9	5.0	5.5	Unit
Device Voltage	V_D				Vdc
Device Current	I_D	10	25	60	mAdc
Decoupling Impedance	Z_D	1000	1000	330	Ω



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

ELECTRICAL CHARACTERISTICS ($T_C = -25$ to $+125^\circ\text{C}$, $50\ \Omega$ system and specified operating conditions)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	0.1	—	400	MHz
Power Gain	G_p	13	14	—	dB
Response Flatness	F	—	0	± 1.0	dB
Input VSWR	MWA110/120	—	—	2.5:1	—
	MWA130	—	—	3:1	—
Output VSWR	MWA110/120/130	—	—	2.5:1	—
Output @ 1 dB Gain Compression	MWA110	—	-2.5	—	dBm
	MWA120	—	+8.2	—	
	MWA130	—	+18	—	
Noise Figure	MWA110	—	4.0	—	dB
	MWA120	—	5.5	—	
	MWA130	—	7.0	—	
Reverse Isolation	MWA110	—	18.8	—	dB
	MWA120	—	19.2	—	
	MWA130	—	16.8	—	
Harmonic Output	MWA110 ($P_{out} = -9$ dBm)	—	-24	—	dB
	MWA120 ($P_{out} = 0$ dBm)	—	-34	—	
	MWA130 ($P_{out} = +10$ dBm)	—	-35	—	