

# RF AMPLIFIER

## MODEL CZ8120

Available as: CZ8120, 3 Pin TO-39 (T10)

### Features

- Replacement for the Motorola MWA 120
- Operating Temp. 0 °C to +70 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = 0 °C to +70 °C
Frequency		kHz - 400 MHz	kHz - 400 MHz
Gain (dB)		15	13 Min.
Power @ 1 dB Comp. (dBm)		+9	+7 Min.
Reverse Isolation (dB)		-18	-17 Max.
VSWR	In	<2.0:1	2.5:1 Max.
	Out	<2.2:1	2.5:1 Max.
Noise figure (dB)		<5.0	6.5 Max.
Power	Vdc	+5	+5
	mA	25	28 Max.

Note: Care should always be taken to effectively ground the case of each unit.

### Typical Intermodulation Performance at 25 °C

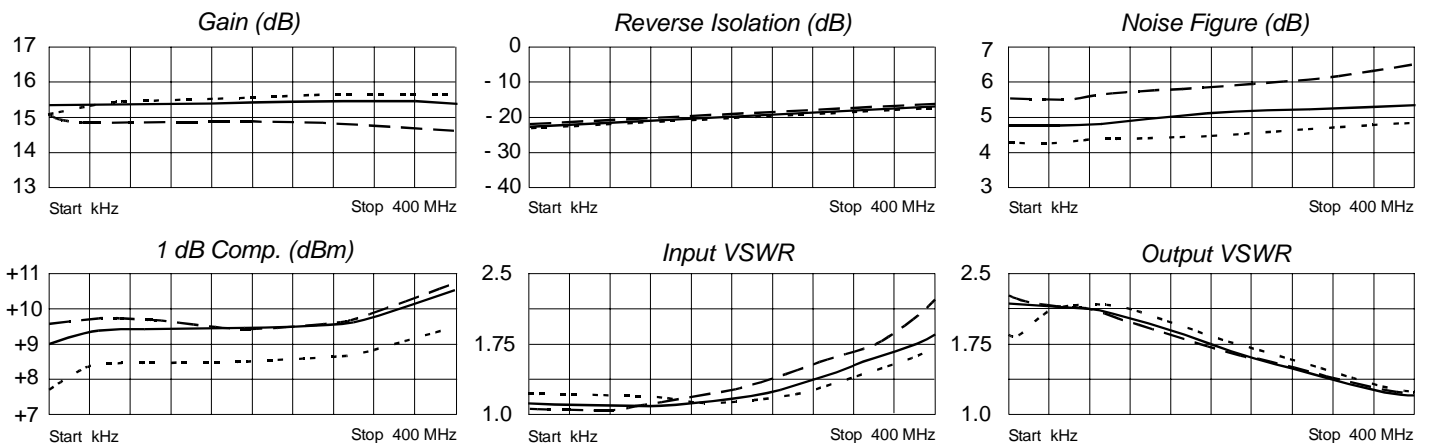
Second Order Harmonic Intercept Point ..... +31 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +25 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +21 dBm (Typ.)

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 125 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt ( 3 μsec Max.)

\*Three external capacitors and a decoupling impedance are required.

### Typical Performance Data

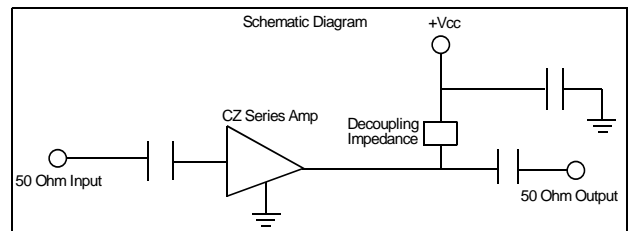


Legend ——— +25 °C - - - - +70 °C ······ 0 °C

The CZ81X0 Series Amplifiers are designed for application in 50 ohm systems. Three external capacitors and a decoupling impedance are required. The decoupling impedance must be large in comparison to the 50 ohm load to minimize gain reduction. Data sheet curves are based on the noted decoupling impedance. The external capacitors determine the low frequency response of the Amplifier.

The CZ82X0 Series Amplifiers can be cascaded in series of two or more units without oscillation problems.

\*Decoupling Impedance is 1 kOhm.



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