

General-purpose amplifier used in push-pull input and output, wide- and narrow-band amplifier, agc, detector, mixer, limiter, modulator, and cascode amplifier applications. 12-lead "TO-5" package; Outline No. 2. For schematic diagram and characteristics curves, see Figs. 138, 140, 143, 145, 146, 150, 151, 154 through 161, and 163 through 166.

MAXIMUM RATINGS

Positive DC Supply Voltage	V_{CC}	+12	V
Negative DC Supply Voltage	V_{EE}	-12	V
Input Signal Voltage:			
Single-ended		± 3.5	V
Common-mode	+3.5 to	-2.5	V
Total Device Dissipation		300	mW
Temperature Range:			
Operating		-55 to 125	$^{\circ}\text{C}$
Storage		-65 to 200	$^{\circ}\text{C}$

**TYPICAL CHARACTERISTICS (At ambient temperature = 25 $^{\circ}\text{C}$,
 $V_{CC} = +6\text{V}$, $V_{EE} = -6\text{V}$)**

Input Offset Voltage	V_{IO}	2.6	mV
Input Offset Current	I_O	1.4	μA
Input Bias Current	I_I	19	μA
Quiescent Operating Current:			
Terminals 4 and 5 not connected	I_{I0} or I_{I1}	1	mA
Terminal 4 not connected, terminal 5 connected to V_{EE}	I_{I0} or I_{I1}	2.7	mA
Terminal 4 connected to V_{EE} , terminal 5 not connected	I_{I0} or I_{I1}	0.45	mA
Terminals 4 and 5 connected to V_{EE}	I_{I0} or I_{I1}	1.25	mA
Quiescent Operating Current Ratio	I_{I0}/I_{I1}	1.05	
Device Dissipation	P_T	26	mW
Power Gain ($f = 100\text{ MHz}$):			
Cascode circuit	G_P	20	dB
Differential-amplifier circuit	G_P	16	dB
Noise Figure ($f = 100\text{ MHz}$):			
Cascode circuit	NF	7.8	dB
Differential-amplifier circuit	NF	7.8	dB
Common-Mode Rejection Ratio ($f = 1\text{ kHz}$)	CMR	101	dB
Useful Frequency Range		dc to 120	MHz
AGC Range (Maximum Voltage Gain to Com- plete Cutoff, $f = 1.75\text{ MHz}$)	AGC	-60 min	dB