

VIDEO AND WIDE-BAND AMPLIFIER

CA3021

General-purpose amplifier used in gain-controlled linear amplifier, AM/FM if amplifier, video amplifier, and limiter applications. 12-lead "TO-5" package; Outline No. 2. For schematic diagrams and characteristics curves, see Figs. 119 through 133.

MAXIMUM RATINGS

Positive DC Supply Voltage	V_{CC}	+18	V
Negative DC Supply Voltage	V_{EE}	-6	V
Input Signal Voltage (Single-ended)		± 3	V
Total Device Dissipation		120	mW
Temperature Range:			
Operating		-55 to 125	°C
Storage		-65 to 200	°C

TYPICAL CHARACTERISTICS (At ambient temperature = 25°C, $V_{CC} = +6V$, $V_{EE} = 0$)

Device Dissipation	P_T	4	mW
Quiescent Output Voltage	V_o	2.2	V
AGC Source Current ($V_{AGC} = 6V$)	I_{AGC}	0.8	mA
Voltage Gain ($f = 0.5$ MHz)	A	56	dB
-3-dB Bandwidth	BW	2.4	MHz
Input Resistance ($f = 1$ MHz)	R_{in}	4	k Ω
Input Capacitance ($f = 1$ MHz)	C_{in}	11	pF
Output Resistance ($f = 1$ MHz)	R_{out}	300	Ω
Noise Figure ($f = 1$ MHz)	NF	4.2	dB
AGC Range ($f = 1$ MHz)	AGC	33	dB
Useful Frequency Range		dc to 6	MHz
Maximum Output Voltage ($f = 1$ MHz)	V_{out}	0.6	V_{rms}