

CA3029

OPERATIONAL AMPLIFIER

General-purpose amplifier used in narrow-band and bandpass amplifier, feedback amplifier, dc and video amplifier, multivibrator, oscillator, comparator, servo driver, scaling adder, and balanced modulator-driver applications. 14-lead dual in-line plastic package; Outline No. 6. For schematic diagram and characteristics curves, see Figs. 197 through 208.

MAXIMUM RATINGS

Positive DC Supply Voltage	V_{CC}	+10	V
Negative DC Supply Voltage	V_{EE}	-10	V
Input Signal Voltage		+1, -4	V
Total Device Dissipation		300	mW
Temperature Range:			
Operating		0 to 70	°C
Storage		-25 to 85	°C

TYPICAL CHARACTERISTICS (At ambient temperature = 25°C,

$$V_{CC} = +6V, V_{EE} = -6V)$$

Input Offset Voltage	V_{IO}	1.08	mV
Input Offset Current	I_{IO}	0.54	μA
Input Bias Current	I_I	5.3	μA
Input Offset Voltage Sensitivity:			
Positive	$\Delta V_{IO}/\Delta V_{CC}$	0.103	mV/V
Negative	$\Delta V_{IO}/\Delta V_{EE}$	0.260	mV/V
Device Dissipation:			
Terminal 8 not connected	P_T	30	mW
Terminal 8 shorted to 12	P_T	102	mW
Open-Loop Differential Voltage Gain			
(f = 1 kHz)	A_{OL}	60	dB
Open-Loop -3-dB Bandwidth	BW_{OL}	300	kHz
Common-Mode Rejection Ratio			
(f = 1 kHz)	CMR	94	dB
Maximum Output-Voltage Swing			
(f = 1 kHz)	$V_o(P-P)$	6.75	V_{p-p}
Input Impedance (f = 1 kHz)	Z_{in}	14	k Ω
Output Impedance (f = 1 kHz)	Z_{out}	200	Ω
Useful Frequency Range		dc to 15	MHz
Common-Mode Input-Voltage Range			
(f = 1 kHz)	V_{CMR}	+0.5, -4	V