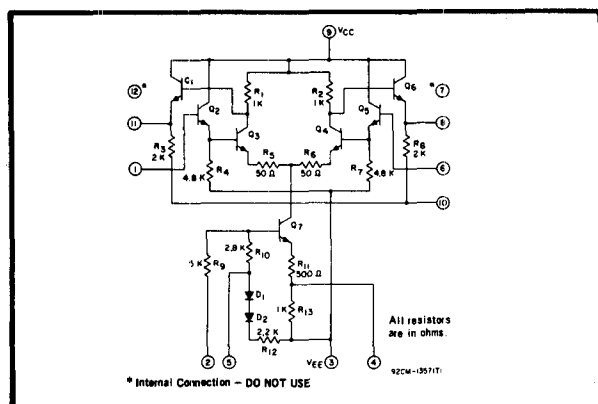


③ Differential Amplifiers

Video and Wide-Band Amplifiers

CA3001



Package	Suffix	T _A (°C)
12-Lead TO-5 Chip	None H	-55 to +125 Page 59

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Applications and Features

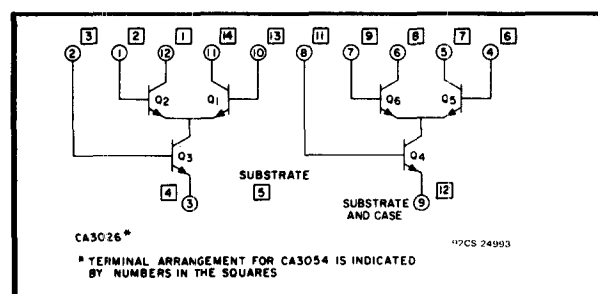
Communications equipment
DC, if, and video systems
Emitter-follower input and output
Mixer
Modulator
Push-pull input and output
Schmitt trigger

Electrical Characteristics at T_A = 25°C

Input Offset Voltage	1.5	mV typ.
Differential Voltage Gain at 1.75MHz	16	dB min.
Bandwidth (-3dB point)	16	MHz min.
AGC Range at 1.75MHz	55	dB min.
Parallel Input Resistance	50	kΩ typ.
Output Resistance	70	Ω max.

Dual Independent Differential Amplifiers

CA3026, CA3054



Package	Suffix	T _A (°C)
12-Lead TO-5 (CA3026)	None	-55 to +125
14-Lead DIP (CA3054)	None	-55 to +125
Beam Lead (CA3054)	L	Page 59
Chip	H	Page 59

File No. 388*

High-Reliability Version (CA3026) See Page 41

Applications and Features

Balanced (push-pull) cascode amplifiers
Balanced quadrature detectors
Cascode limiters
Doubly balanced modulators and demodulators
Dual Schmitt triggers
Dual sense amplifiers

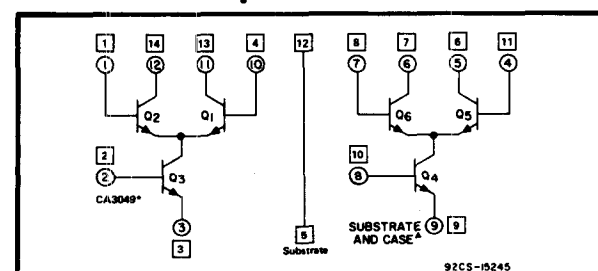
IF amplifiers (differential and/or cascode)
Multifunction combinations: rf/mixer/oscillator, converter/if
Pairs of balanced mixers
Synchronous detectors
Synthesizer mixers

Electrical Characteristics at T_A = 25°C

Input Offset Voltage	5	mV max.
Input Offset Current	2	μA max.
Voltage Gain (single-stage double-ended output)	32	dB typ.
Common-Mode Rejection Ratio (per amplifier)	100	dB typ.

Dual Independent Differential RF/IF Amplifiers

CA3049, CA3102



Package	Suffix	T _A (°C)
12-Lead TO-5 (CA3049)	T	-55 to +125
14-Lead DIP (CA3102)	E	-55 to +125
Beam Lead (CA3049)	L	Page 59
Chip	H	Page 59

File No. 611*

High-Reliability Version (CA3049) See Page 41

Applications and Features

For low-power applications from dc to 500 MHz

Balanced quadrature detector
Balanced (push-pull) cascode amplifier
Cascode limiter
Doubly balanced modulator and demodulator
Dual Schmitt trigger
Dual sense amplifier

Independently accessible inputs and outputs
IF amplifier (differential and/or cascode)
Product detector
Synchronous detector
VHF amplifier
VHF mixer

Electrical Characteristics at T_A = 25°C

	CA3049	CA3102E
Input Offset Voltage	—	5
Input Offset Current	—	3
Collector-Cutoff Current	100	100
Collector-to-Emitter Breakdown Voltage	15	15
Insertion Power Gain at 200 MHz	23	23
Noise Figure at 200 MHz	4.6	4.6