

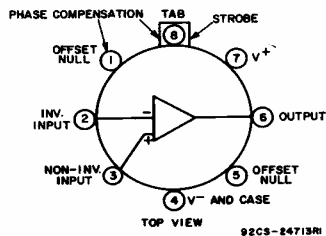
CA3130/..., CA3130A/...**High-Reliability BiMOS
Operational Amplifiers**

With MOSFET Input, CMOS Output

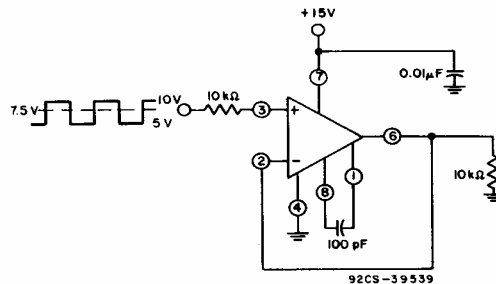
The CA3130 and CA3130A Slash (/) Series types are supplied in the 8-lead TO-5 style package.

TABLE A. POST BURN-IN, FINAL ELECTRICAL AND GROUP A SAMPLING TESTS

CHARACTERISTIC	SYMBOL	TEST CONDITIONS V ⁺ =+15 V, V ⁻ = 0 V Unless Otherwise Specified	LIMITS						UNITS
			MINIMUM			MAXIMUM			
			-55	+25	+125	-55	+25	+125	
Input Offset Voltage: CA3130 CA3130A	V _{IO}	V [±] = ±7.5 V	—	—	—	40	25	40	mV
			—	—	—	20	12	20	
Input Offset Current: CA3130 CA3130A	I _{IO}	V [±] = ±7.5 V	—	—	—	500	30	5000	pA
			—	—	—	300	20	3000	
Input Current: CA3130 CA3130A	I _I	V [±] = ±7.5 V	—	—	—	50	0.05	50	nA
			—	—	—	40	0.03	40	
Large Signal Voltage Gain: CA3130 CA3130A	A _{OL}	V _O = 8 V _{p-p} (-55, +125°C)	86	94	86	—	—	—	dB
		V _O = 10 V _{p-p} (25°C)	88	94	88	—	—	—	
Common-Mode Rejection Ratio: CA3130 CA3130A	CMRR		64	70	64	—	—	—	dB
			74	80	74	—	—	—	
Common-Mode Input Voltage Range	V _{ICR}		0	0	0	10	10	10	V
Power Supply Rejection Ratio: CA3130 CA3130A	PSRR	V [±] = ± 7.5 V	—	—	—	400	320	400	μV/V
			—	—	—	200	150	200	
Maximum Output Voltage	V _{OM} ⁺ V _{OM} ⁻	R _L = 2 kΩ	10	12	10	—	—	—	V
			—	—	—	0.05	0.01	0.05	
Maximum Output Voltage	V _{OM} ⁺ V _{OM} ⁻	R _L = ∞	14.95	14.99	14.95	—	—	—	V
			—	—	—	0.05	0.01	0.05	
Maximum Output Current	I _{OM} ⁺ I _{OM} ⁻	V _O = 0 V	—	12	—	—	45	—	mA
		V _O = 15 V	—	12	—	—	45	—	
Supply Current	i ⁺	V _O = 7.5V, R _L =∞	—	—	—	—	15	—	mA
		V _O = 0V, R _L =∞	—	—	—	—	3	—	



Functional diagram of the CA3130 Series.



Burn-In and Life Test Circuit.

CA3130/..., CA3130A/...**TABLE B. DELTA LIMITS** at $T_A = 25^\circ\text{C}$, $V^+ = 7.5\text{ V}$, $V^- = -7.5\text{ V}$ (/1 only)

CHARACTERISTIC	SYMBOL	LIMITS	UNITS
		MAX.Δ	
Input Offset Voltage	CA3130	±8	mV
	CA3130A	±3	
Input Offset Current	CA3130	±15	pA
	CA3130A	±8	
Input Current	CA3130	±0.01	nA
	CA3130A	±0.01	

TABLE C. GROUPS AND D END-POINT TESTS at $T_A = 25^\circ\text{C}$, $V^+ = +15\text{ V}$, $V^- = -15\text{ V}$

CHARACTERISTIC	SYMBOL	LIMITS		UNITS
		MIN.	MAX.	
Input Offset Voltage	CA3130	V_{IO}	30	mV
	CA3130A		17	
Input Offset Current	CA3130	I_{IO}	30	pA
	CA3130A		20	
Input Current	CA3130	I_I	0.05	nA
	CA3130A		0.03	
Large Signal Voltage Gain	CA3130	AOL	91	dB
	CA3130A		91	