

High-Reliability BiMOS Dual Voltage Comparator

With MOSFET Input, Bipolar Output

The CA3290A Slash (/) Series type is supplied in an 8-lead TO-5 style package.

TERMINAL ASSIGNMENT

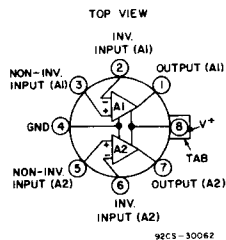


TABLE A. POST BURN-IN, FINAL ELECTRICAL AND GROUP A SAMPLING TESTS

CHARACTERISTIC	TEST CONDITIONS $V^+ = 15V$, $V^- = -15V$ Unless Otherwise Specified	LIMITS						UNITS
		MINIMUM			MAXIMUM			
		-55°C	+25°C	+125°C	-55°C	+25°C	+125°C	
Input Offset Voltage V_{io}	$V_{CM} = 1.4V$, $V^+ = 5V$	—	—	—	20	12	20	mV
	$V_{CM} = 0$, $V^+ = 15V$	—	—	—	20	12	20	
Input Current I_i	—	—	—	—	—	40	—	pA
					200	—	100	
Input Offset Current I_{io}	—	—	—	—	—	25	—	pA
					80	—	50	
Supply Current, $R_L = \infty$ I^+	5 V	—	—	—	1.5	1.4	1.4	mA
	30 V	—	—	—	3.3	3	3	
Voltage Gain $R_L = 15K\Omega$ A_{OL}	—	10	25	15.4	—	—	—	V/mV
		80	88	83.7				dB
Output Sink Current I_{SINK}	$V_O = 1.4V$, $V^+ = 5V$	3	6	8	—	—	—	mA
Saturation Voltage V_{SAT}	$I_{SINK} = 4mA$; $-V_1 = 1V$, $V^+ = 5V$	—	—	—	0.5	0.4	0.35	V
Output Leakage Current I_{OL}	—	—	—	—	—	1	—	nA
					1	—	1	
Common Mode Rejection Ratio $CMRR$	$V^+ = 5V$	—	—	—	—	562	—	$\mu V/V$
Power Supply Rejection Ratio $PSRR$	—	—	—	—	—	316	—	$\mu V/V$

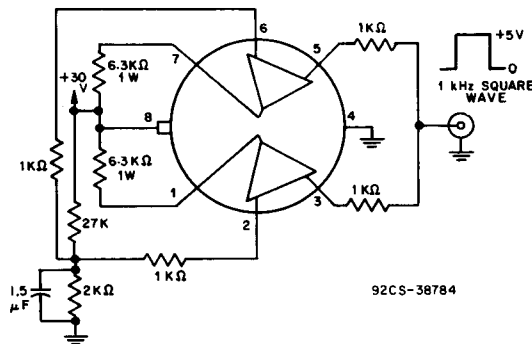
CA3290A/...

TABLE B. DELTA LIMITS at $T_A = 25^\circ C$ (/1 only)

CHARACTERISTIC		LIMITS	UNITS
		MAX.Δ	
Input Offset Voltage (15 V)	V_{IO}	±5	mV
Input Offset Current	I_{IO}	±10	pA
Input Bias Current	I_I	±15	pA

TABLE C. GROUPS C AND D END-POINT TESTS at $T_A = 25^\circ C$

CHARACTERISTIC		LIMITS		UNITS
		MIN.	MAX.	
Input Offset Voltage	V_{IO}	—	15	mV
Input Current	I_I	—	50	pA
Input Offset Current	I_{IO}	—	35	pA
Voltage Gain $R_L = 15 K\Omega$	A_{OL}	20	—	V/mV
Output Sink Current	I_{SINK}	5	—	mA
Saturation Voltage	V_{SAT}	—	0.48	V
Output Leakage Current	I_{OL}	—	2	nA
Common Mode Rejection Ratio	CMRR	—	780	$\mu V/V$



Burn-in and life test circuit.