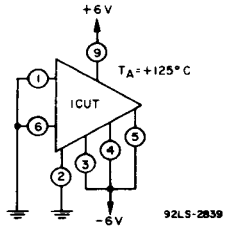
CA3000/...

High-Reliability DC Amplifier

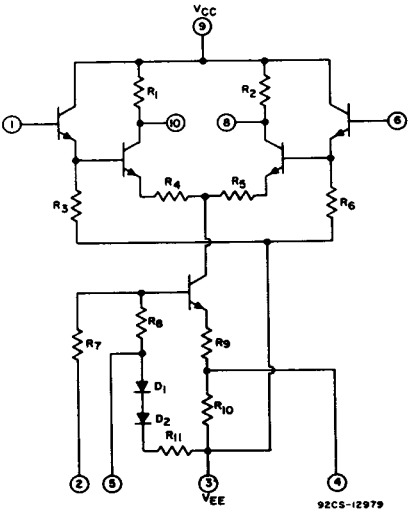
The CA3000 Slash (/) Series type is supplied in the 10-lead TO-5 style package.

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

Characteristics	Symbol	Test Conditions $V^+ = +6$ V, $V^- = -6$ V		Limits for Indicated Temp. (°C)						Units
				Minimum			Maximum			
				-55	+25	+125	-55	+25	+125	
STATIC										
Input Offset Voltage	V_{IO}	–		–	–	–	6.5	5	6.5	mV
Input Offset Current	I_{IO}	–		–	–	–	20	10	20	μA
Input Bias Current	I_I	–		–	–	–	70	36	25	μA
Quiescent Operating Voltage	V_8 or V_{10}	Terminal 4	Terminal 5							
		NC	NC	—	1.5	—	—	3.2	—	V
Device Dissipation	P_T	Terminal 4	Terminal 5							
		NC	NC	30	25	20	60	60	50	mW
		NC	$-V_{EE}$	25	20	15	55	55	50	mW
		$-V_{EE}$	NC	55	50	45	105	105	90	mW
		$-V_{EE}$	$-V_{EE}$	35	35	25	70	70	65	mW
DYNAMIC										
Differential Voltage Gain	A_{Diff}		Single-Ended Output	–	28	–	–	–	–	dB
Maximum Output Voltage	V_{OUT} (p-p)			–	5	–	–	–	–	V_{p-p}
Bandwidth at -3 dB Point	BW			–	600	–	–	–	–	kHz
Common-Mode Rejection Ratio	CMR			–	70	–	–	–	–	dB
AGC Range (Maximum Voltage Gain to Complete Cut-off)	AGC			–	80	–	–	–	–	dB



Burn-in and operating life test circuit



Schematic Diagram

TABLE B. DELTA LIMITS *at T_A = 25°C, V^+ = +6 V, V^- = -6 V (/1 only)*

CHARACTERISTIC	SYMBOL	TEST CONDITIONS	LIMITS MAX. Δ	UNITS
Input Bias Current	I_I	–	±4	μA
Quiescent Operating Voltage	V_8 or V_{10}	Terminal 4: NC Terminal 5: NC	±0.3	V
Device Dissipation	P_T	Terminal 4: NC Terminal 5: NC	±6	mW
Input Offset Current	I_{IO}	—	±2	μA
Input Offset Voltage	V_{IO}	—	±1	mV

TABLE C. GROUPS C AND D END-POINT TESTS *at T_A = 25°C*

Characteristic	Symbol	TEST CONDITIONS V^+ = +6 V, V^- = -6 V	Limits Min.	Limits Max.	Units
Input Offset Voltage	V_{IO}		–	5	mV
Input Offset Current	I_{IO}		–	10	μA
Input Bias Current	I_I		–	36	μA
Quiescent Operating Voltage	V_8 or V_{10}		1.5	3.2	V
Device Dissipation	P_T	Terminal 4 NC Terminal 5 NC	25	60	mW
Differential Voltage Gain Single-Ended Input	A_{DIFF}	Single Ended Output f = 1 kHz	28	–	dB