

CA3001/...

High-Reliability Video Amplifier

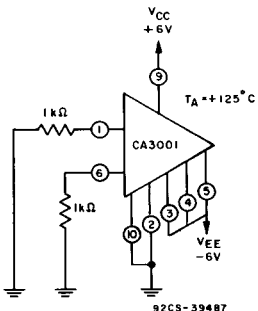
The CA3001 Slash (/) Series type is supplied in the 12-lead TO-5 style package.

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

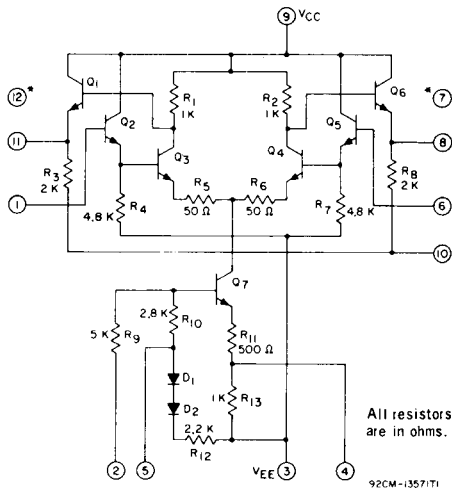
Characteristics	Symbol	Test Conditions $V^+ = +6V$, $V^- = -6V$	Limits for Indicated Temp. ($^{\circ}C$)						Units	
			Minimum			Maximum				
			-55	+25	+125	-55	+25	+125		
Static										
Input Unbalance Current	I_{IU}	-	-	-	-	23	10	5	μA	
Input Bias Current	I_I	-	-	-	-	66	36	22	μA	
Output Offset Voltage	V_{oo}	-	-	-	-	420	300	260	mV	
Quiescent Operating Voltage	V_9 or V_{11}	Terminal 4	Terminal 5							
		NC	NC	3.8	3.8	3.8	4.8	4.8	4.8	V
Device Dissipation	P_T	Terminal 4	Terminal 5							
		NC	NC	60	60	50	125	115	110	mW
		NC	-V-	55	55	45	120	105	105	mW
		-V-	NC	80	80	70	175	160	155	mW
		-V-	-V-	60	60	50	135	125	125	mW
Common-Mode Rejection Ratio	CMRR	$f = 1 \text{ kHz}$	-	70	-	-	-	-	dB	
Dynamic										
Differential Voltage Gain (single-ended input and output)	A_{Diff}	$f = 1.75 \text{ MHz}$	-	16	-	-	-	-	dB	
		$f = 20 \text{ MHz}$	-	10	-	-	-	-	dB	
Maximum Output Voltage Swing	$V_{OUT (P-P)}$	$f = 1.75 \text{ MHz}$	-	4	-	-	-	-	V_{P-P}	
Noise Figure	NF	$f = 1.75 \text{ MHz}, R_s = 1k\Omega$	-	-	-	-	8	-	dB	
AGC Range (max. voltage gain to complete cutoff)	AGC	$f = 1.75 \text{ MHz}$	-	55	-	-	-	-	dB	

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Burn-in and operating life test circuit.



* Internal Connection - DO NOT USE

Schematic Diagram.

TABLE B. DELTA LIMITS at $T_A = 25^\circ C$, $V^+ = +6V$, $V^- = -6V$ (I1 only)

Characteristic	Symbol	Test Conditions	Limits	Units
			Max.Δ	
Input Offset Current	I_{IO}	-	±2	μA
Input-Bias Current	I_I	-	±4	μA
Output Offset Voltage	V_{OO}	-	±100	mV
Quiescent Operating Voltage	V_8 or V_{11}	Terminal 4: NC Terminal 5: NC	±0.5	V
Device Dissipation	P_T	Terminal 4: NC Terminal 5: NC	±12	mW

TABLE C. GROUPS C AND D END-POINT TESTS at $T_A = 25^\circ C$, $V_C = +6V$, $V_{EE} = -6V$

Characteristic	Symbol	Test Conditions	Limits		Units
			Min.	Max.	
Input Bias Current	I_I	-	-	36	μA
Output Offset Voltage	V_{OO}	-	-	300	mV
Quiescent Operating Voltage	V_8 or V_{11}	Terminal $\frac{4}{NC}$ $\frac{5}{NC}$	3.8	4.8	V
Device Dissipation	P_T	Terminal $\frac{4}{NC}$ $\frac{5}{NC}$	60	115	mW
Voltage Gain	A_{Diff}	$f = 1.75 \text{ MHz}$	16	-	dB