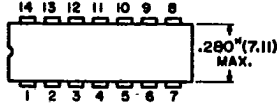


ECG[®] Semiconductors

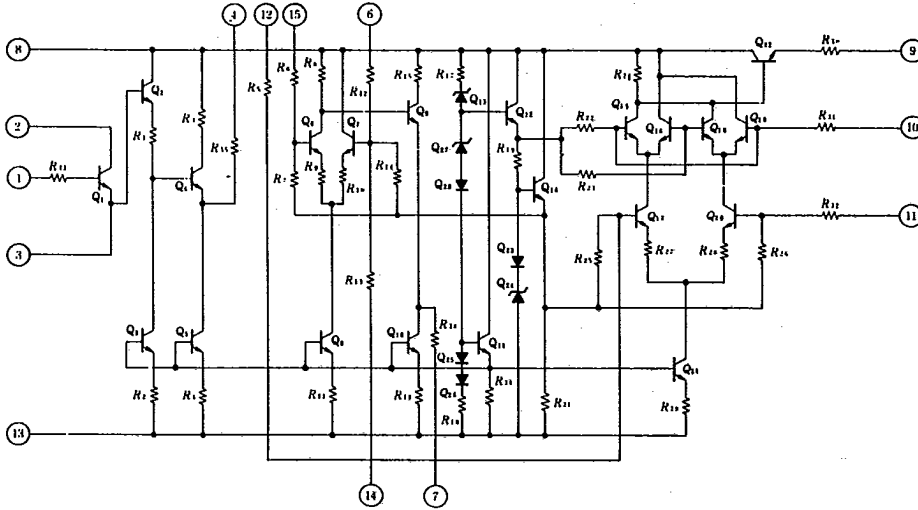
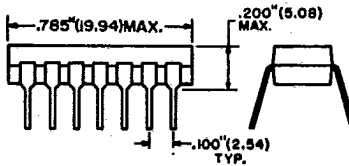
ECG 1229 VERTICAL DEFLECTION AND PIN CUSHION CORRECTION

ECG1229 is a linear integrated circuit designed for color TV vertical deflection and pin cushion correction circuits.



ABSOLUTE MAXIMUM RATINGS $T_a = 85^\circ\text{C}$

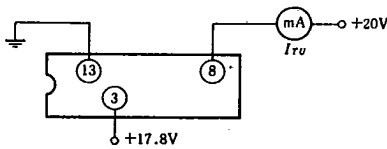
Characteristic	Symbol	Rating	Unit
Supply Voltage	V_{CC}	25	V
Total Power Dissipation	P_T	500	mW
Operating Temperature	T_{opg}	-20 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +125	$^\circ\text{C}$



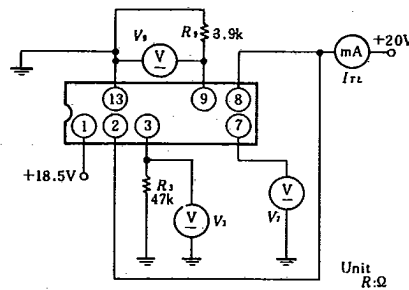
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Test Circuit	Test Condition	Min.	Typ.	Max.	Unit	
No Load Current	I_{TU}	1	$V_{CC} = 20\text{ V}$	--	11.6	20.3	mA	
			$T_a = 85^\circ\text{C}$	--	--	20.3		
Load Current	I_{TL}	2	$V_{CC} = 20\text{ V}$	--	15.3	24.4	mA	
			$T_a = 85^\circ\text{C}$	--	--	24.4		
Total Power Dissipation	P_T	2	$V_{CC} = 20\text{ V}$	--	260	500	mW	
			$T_a = 85^\circ\text{C}$	--	--	500		
Voltage Gain	G_V	3	$V_{in} = 30\text{ mVrms (Pre-driver)}$	0.61	0.875	1.16	Vrms	
		4	$V_{in} = 150\text{ mVrms (T\&B Mod.)}$	0.79	0.995	1.20		
Voltage Test Points	V_4	5	$V_{CC} = 20\text{ V}$	Osc.	7.0	8.7	V	
	V_7	2		Pre-driver	10.07	11.92		13.94
	V_9			T&B Mod.	11.44	13.09		14.87
Current Test Points	I_{14}	6	$V_{CC} = 20\text{ V}$	Osc.	--	--	mApp	
	I_{17}			Pre-driver	--	--		1.89
Circuit Impedance	Z_9	7	$V_{CC} = 20\text{ V, DC Load (T\&B Mod.) } I_9 = 6\text{ mA}$	2.48	--	--	k Ω	

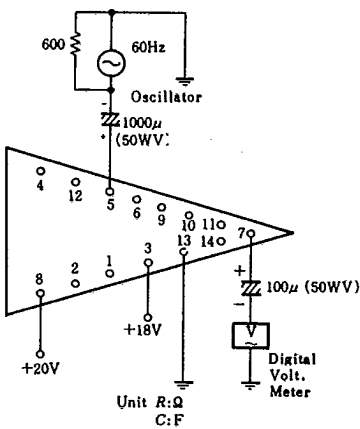
1.



2.



3.

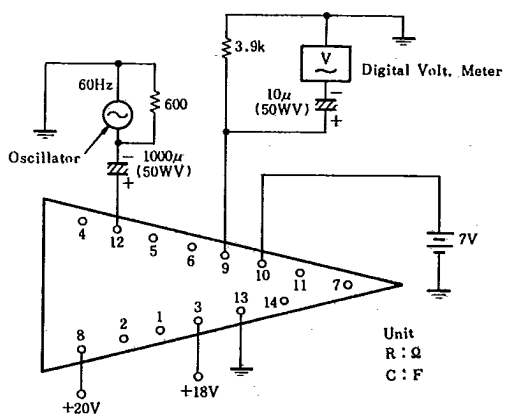


Note: Measure I_{TL} , V_3 and V_9 and calculate the P_T using the following equation:

$$P_T = V_{CC} \times I_{TL} - \frac{V_3^2}{R_3} - \frac{V_9^2}{R_9}$$

Test Procedure

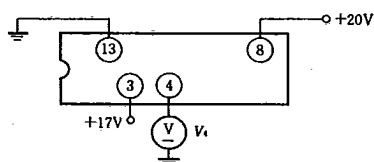
1. Adjust terminal 8 for 20 V and terminal 3 for 18 V, and ground to terminal 13.
2. The sine wave oscillator connect terminal 5 through 1000 μF capacitor.
3. Adjust rms value of input sine wave for $V_{in} = 30\text{ mVrms}$ constant.
4. The digital voltmeter connect to terminal 7 through the 100 μF capacitor and measure V_{out} at the rms value.



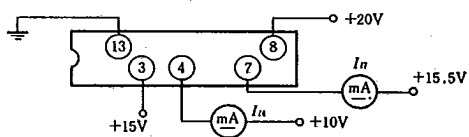
Test Procedure

1. Adjust terminal 8 for 20 V, terminal 10 for 7 V and terminal 3 for 18 V, and ground to terminal 13.
2. The sine wave oscillator connect to terminal 12 through the 1000 μ F capacitor.
3. Adjust rms value of input sine wave for $V_{in} = 150$ mVrms constant.
4. Terminal 9 ground through 3.9 $k\Omega$.
5. The digital voltmeter connect to terminal 9 through the 10 μ F capacitor and measure V_{out} at the rms value.

5.



6.



7.

