

# ECG1105

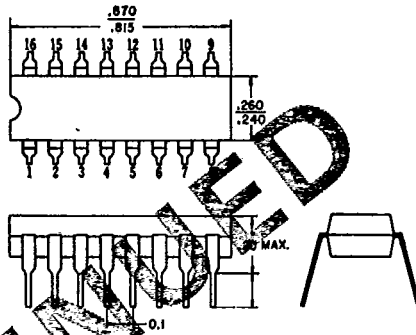
## TV SUB-CARRIER GENERATOR

T-77-07-05

Equipped with Keyed APC, ACC, Killer Detector Amplifier, Burst Amplifier and Sub-carrier Amplifier. Device is suitable for mating with ECG1062.

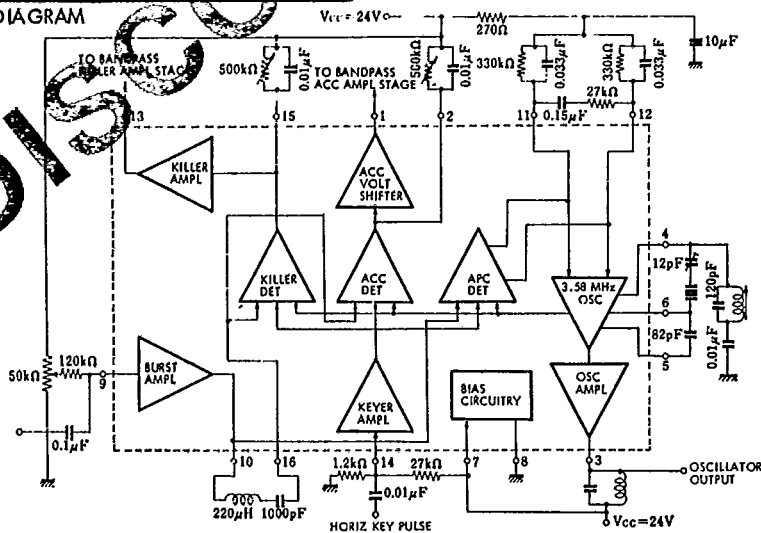
MAXIMUM RATINGS (Ta = 25°C)

Symbol	Rating	Units
V <sub>cc</sub>	25	V
V <sub>14</sub>	-5	V
V <sub>9</sub>	0-5	V
P <sub>D</sub>	750	mW
T <sub>opr</sub>	-20-75	°C
T <sub>stg</sub>	-55-150	°C

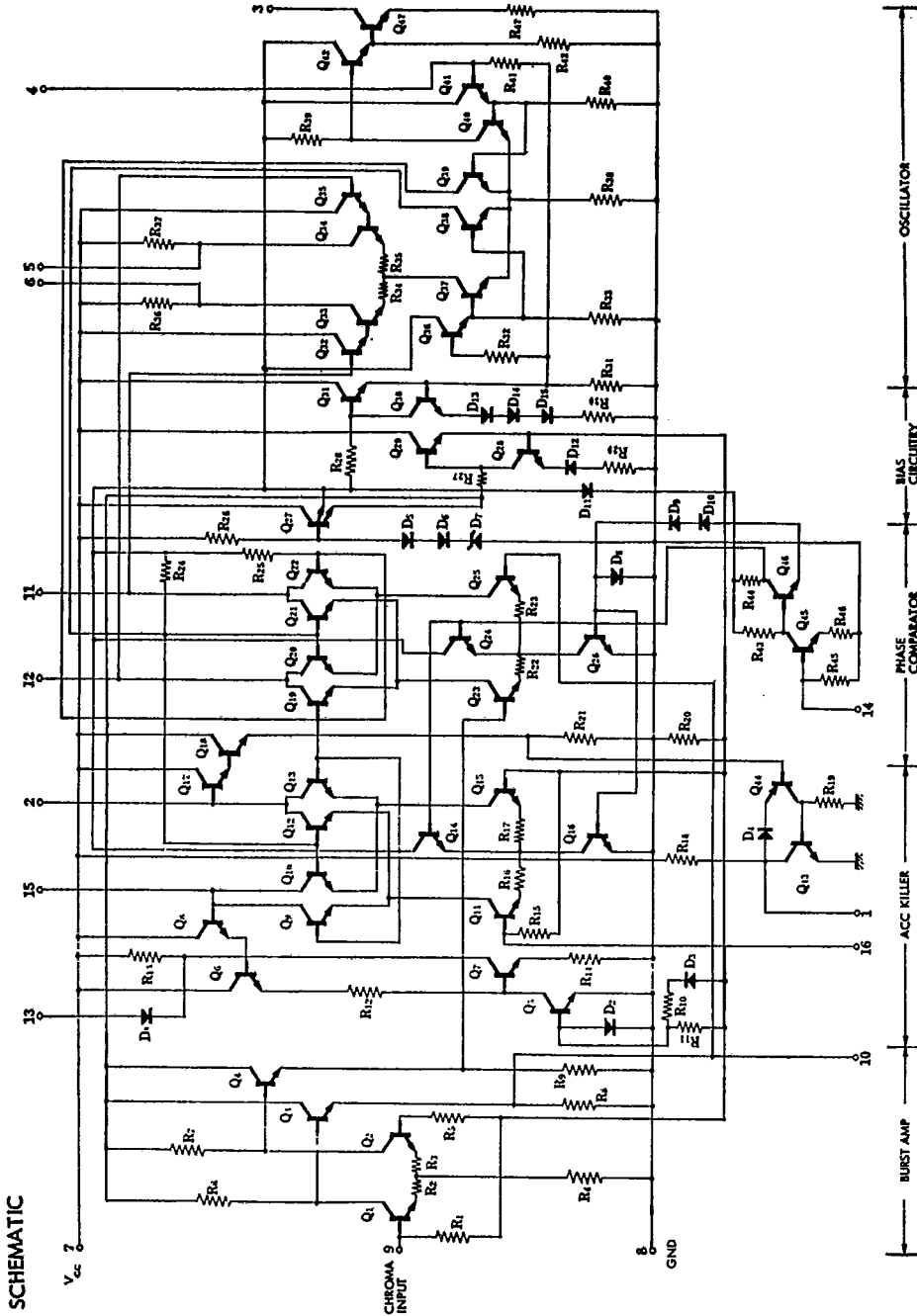


Note: When the ECG1105 is used as a replacement for the TA7102P, retuning of the 3.58 MHz oscillator is absolutely necessary in some manufacturers sets and it is good practice to check in all sets.

BLOCK DIAGRAM



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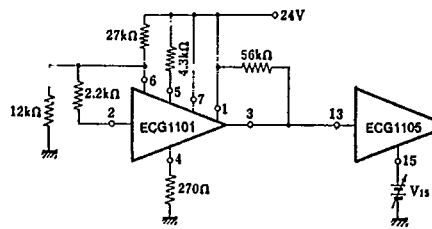
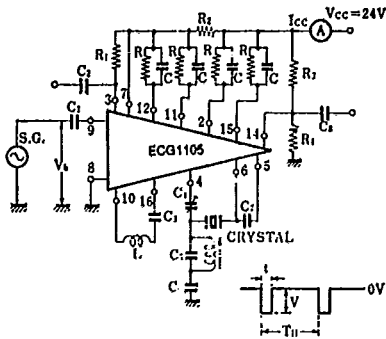
SCHEMATIC

ELECTRICAL CHARACTERISTICS ( $V_{cc} = 24\text{ V}$ ,  $T_a = 25^\circ\text{C}$ )

Symbol	Fig. No.	Test Condition	Min.	Typ.	Max.	Unit
$I_{cc}$	1	$V_b = 0$	15	20	26	mA
$V_{TH}$	2		--	12	--	V
$\Delta V_{TH}$	2		--	--	1.5	V
$V_{L13}$	2		--	--	2.5	V
$I_{11} + I_{12}$	1	$V_b = 0$	--	50	--	$\mu\text{A}$
$I_2$	1	$V_b = 0$	--	25	--	$\mu\text{A}$
$I_{15}$	1	$V_b = 0$	--	25	--	$\mu\text{A}$
$G_{BU}$	1		--	20	--	dB
$G_{BU}$	1		--	3.5	--	$V_{p-p}$
$\Delta f$	3	$V_b = 0$	--	500	--	Hz/V
$V_{OUT}$	1		--	0.5	--	$V_{p-p}$
$\Delta f_L, \Delta f_U$	4		--	400	--	Hz

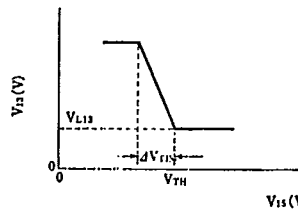
1.  $I_{cc}$ ,  $I_{11} + I_{12}$ ,  $I_2$ ,  $I_{15}$ ,  $G_{BU}$ ,  $V_S(BU)$ ,  $V_{OUT}$

2.  $V_{TH}$ ,  $\Delta V_{TH}$ ,  $V_{L13}$



- $C_1$  : 0.033  $\mu\text{F}$
- $C_2$  : 0.1  $\mu\text{F}$
- $C_3$  : 0.1  $\mu\text{F}$
- $C_4$  : 0.01  $\mu\text{F}$
- $C_5$  : 0-12 pF
- $C_6$  : 120 pF
- $C_7$  : 0.01  $\mu\text{F}$
- $C_8$  : 82 pF

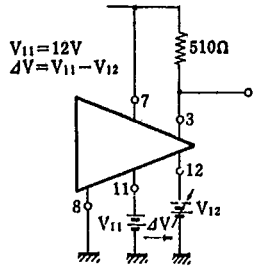
- $R$  : 330 k Ohms
- $R_1$  : 500 Ohms
- $R_2$  : 270 Ohms
- $R_3$  : 27 k Ohms
- $R_4$  : 1.2 k Ohms
- $L$  : 220  $\mu\text{H}$
- $T_H$  = 63.5  $\mu\text{s}$
- $t$  = 4.2  $\mu\text{s}$
- $V$  = 2.0  $V_{p-p}$



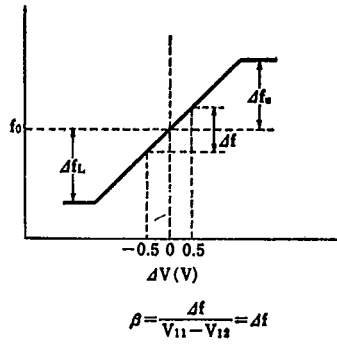
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3.  $\Delta f$

$V_{11} = 12\text{ V}$   
 $\Delta V = V_{11} - V_{12}$



3.58 MHz



4.  $\Delta f_L, \Delta f_U$

