

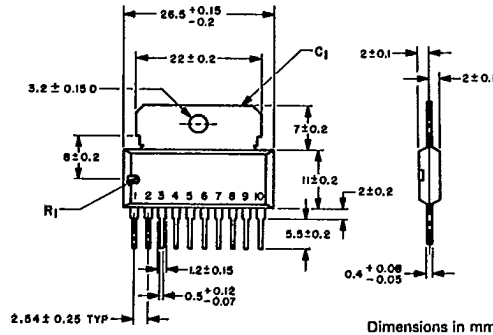


# ECG1153

## AUDIO POWER AMPLIFIER

T-74-05-01

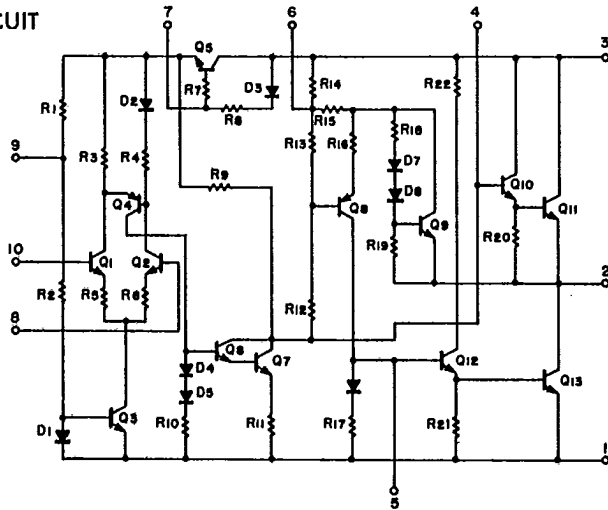
- 4.2 W Audio Power Amplifier
- Car Stereo, Car Radio Output Application Uses
- Output Power 4.2 Watts (Typ.) at  $V_{CC} = 13.2\text{ V}$ ,  $R_L = 4\ \Omega$ , THD = 10%
- Recommended Supply Voltage Range: 10 - 16 V
- Excellent Ripple Rejection
- 10-Lead Single Inline Plastic Package



**MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )**

Characteristic	Symbol	Rating	Unit
Supply Voltage	$V_{CC}$	18	V
Output Peak Current	$I_o$ (Peak)	1.8	A
Power Dissipation	$P_D$	5.0	W
Operating Temperature	$T_{opr}$	-20 - 75	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 - 150	$^\circ\text{C}$

**EQUIVALENT CIRCUIT**



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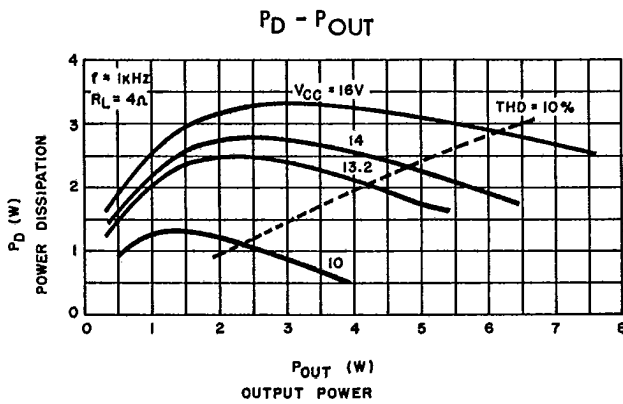
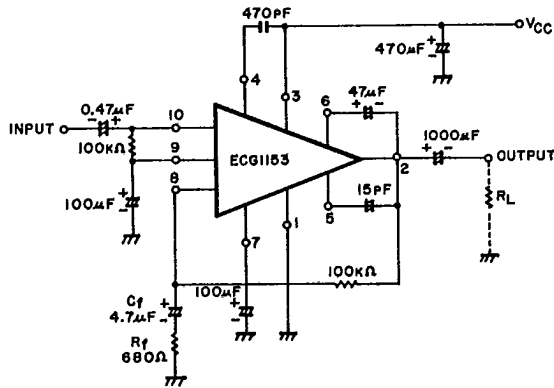


ELECTRICAL CHARACTERISTICS  
 ( $V_{CC} = 12.5\text{ V}$ ,  $R_L = 4\text{ Ohms}$ ,  $R_g = 600\text{ Ohms}$ ,  $R_f = 680\text{ Ohms}$ ,  $f = 1\text{ kHz}$ ,  $T_a = 25^\circ\text{C}$ ,  
 unless otherwise specified)

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Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Quiescent Current	$I_{CCQ}$	$V_{CC} = 18\text{ V}$	--	--	60	mA
Output Power	$P_{OUT}$	THD = 10% $V_{CC} = 13.2\text{ V}$ , THD = 10%	3.0	3.8	--	W
Maximum Output Power	$P_{OM}$	$V_{CC} = 13.2\text{ V}$	--	6.0	--	W
Total Harmonic Distortion	THD	$P_{OUT} = 1\text{ W}$	--	--	1.5	%
Voltage Gain	$G_V$	$R_f = 0$ , $C_f = 33\text{ }\mu\text{F}$ $R_f = 680\text{ Ohms}$	55	--	65	dB
Input Resistance	$R_{IN}$	--	--	70	--	k Ohm
Output Noise Voltage	$V_{NO}$	$R_g = 10\text{ k Ohms}$ $BW = 50 - 20\text{ kHz}$	--	--	3.5	mV

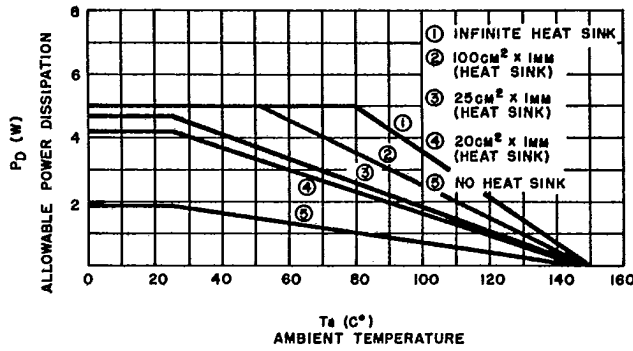
TEST AND APPLICATION CIRCUIT



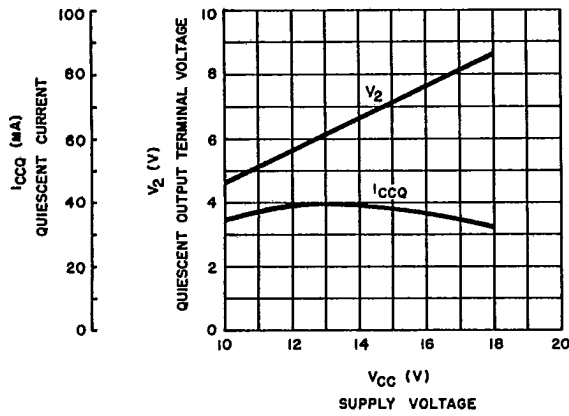
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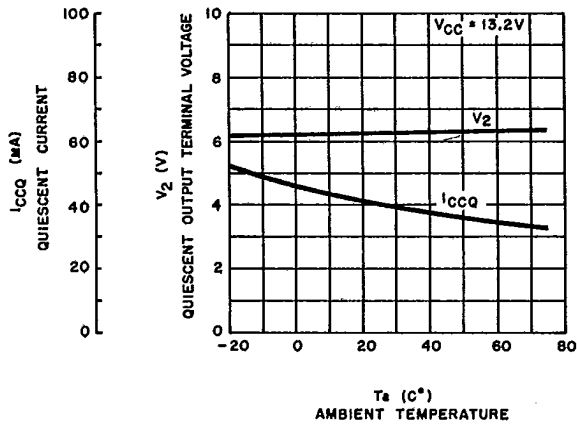
$P_D - T_a$



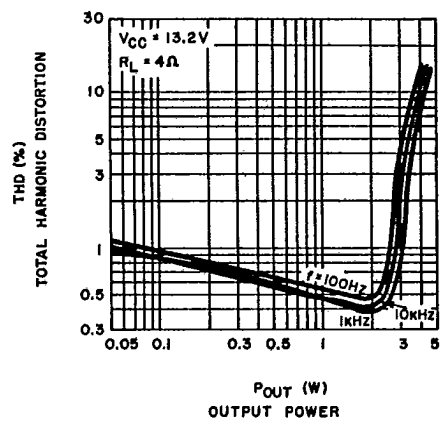
$I_{CCQ}, V_2 - V_{CC}$



$I_{CCQ}, V_2 - T_a$



THD - P<sub>OUT</sub>



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THD, RESPONSE - f

