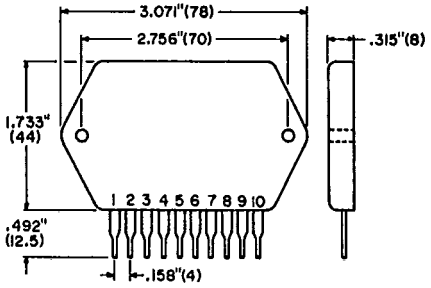
ECG® Semiconductors

ECG1328

50 W AF Power Amplifier

Features

- Minimum output power - 50 W
- Dual power supply - single channel
- Thick film hybrid
- Load shorting protector



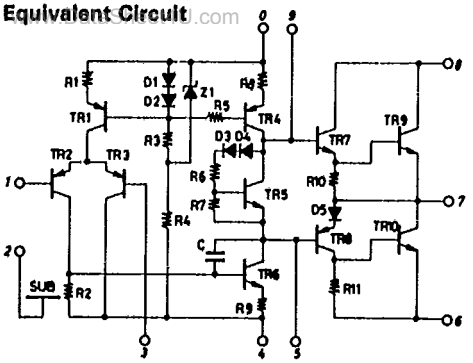
Absolute Maximum Ratings

Characteristic	Symbol	Rating	Unit
Supply Voltage	V_{CC}	±50	V
Collector Current	I_C	7	A
Thermal Coefficient	$\theta_{j\text{-}c}$ (T_C=25°C)	1.7	°C/W
Operating Case Temperature	T_C	85	°C
Storage Temperature	T_{stg}	−30 to +100	°C

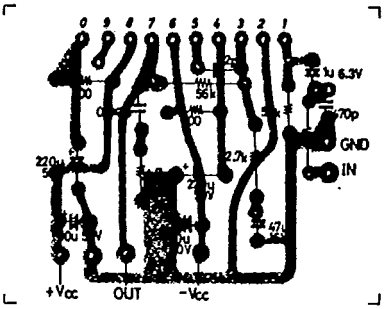
Operational Characteristics (T_A = 25°C, V_{CC} = ±35 V, R_L = 8 Ω, R_g = 600 Ω, V_G = 26.4 dB)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Quiescent Current	I_{CCO}	V_{CC} = ±42 V		50	100	mA
Output Power	$P_O(1)$	THD = 0.2%, f = 20 to 20 kHz	50			W
	$P_O(2)$	THD = 0.2,% f = 1 kHz		60		
	$P_O(3)$	THD = 0.2%, V_{CC} = ±42 V, f = 1 kHz		70		
Distortion	THD(1)	P_O = 1 to 50 W, f = 20 to 20 kHz			0.2	%
	THD(2)	P_O = 1 W, f = 1 kHz		0.03		
Frequency Response	f	P_O = 1 W, +0 dB −1 dB	10 to 100 K			Hz
Input Resistance	r_i	P_O = 1 W, f = 1 kHz		52 K		Ω
Output Noise Voltage	V_{NO}	V_{CC} = ±42 V, R_g = 10 kΩ		0.3	0.5	mVrms
Noise Voltage	V_N	V_{CC} = ±42 V	−70		+70	mV

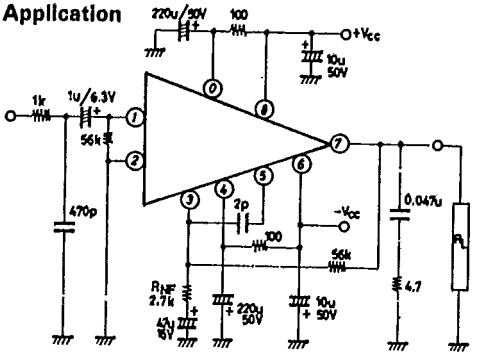
Equivalent Circuit



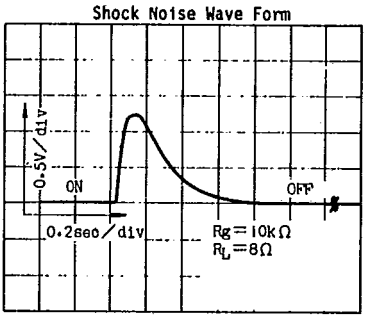
PC Board

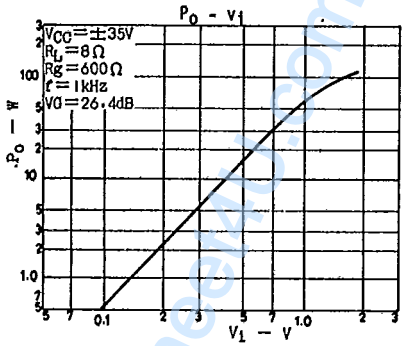


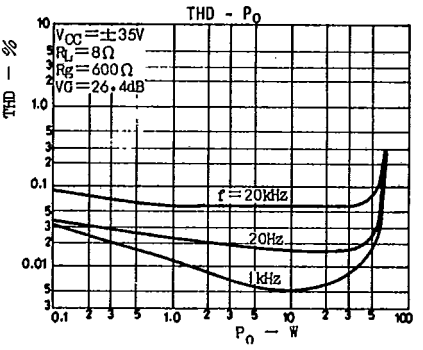
Application

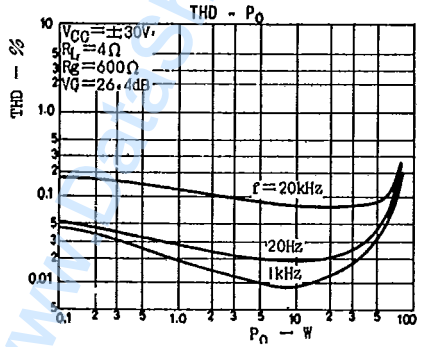


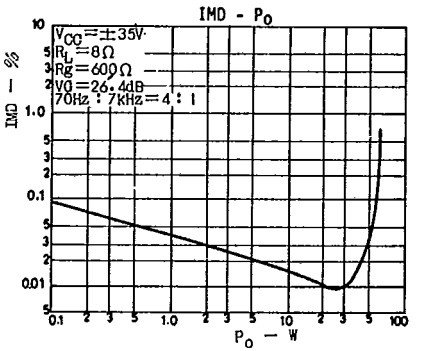
Typical Characteristics

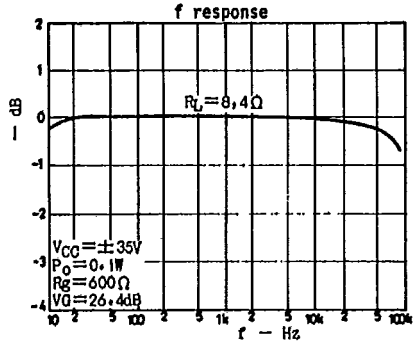


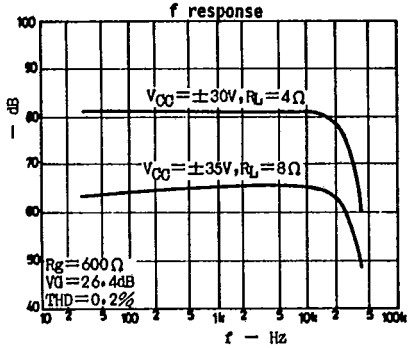


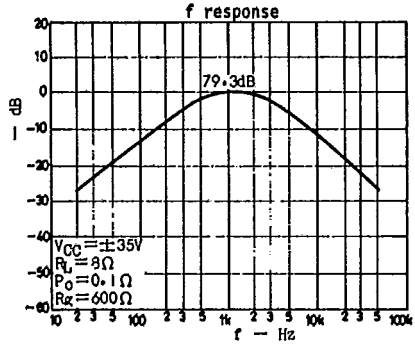


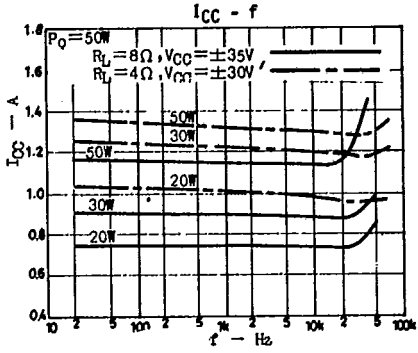


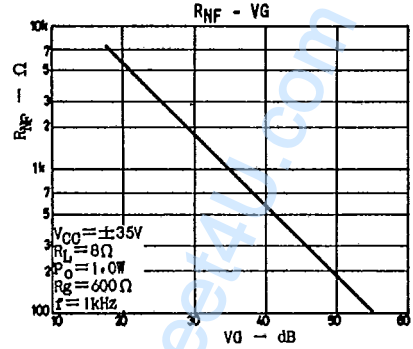


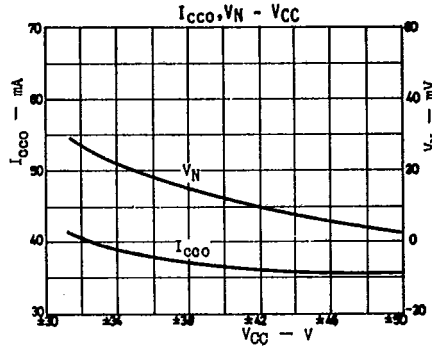


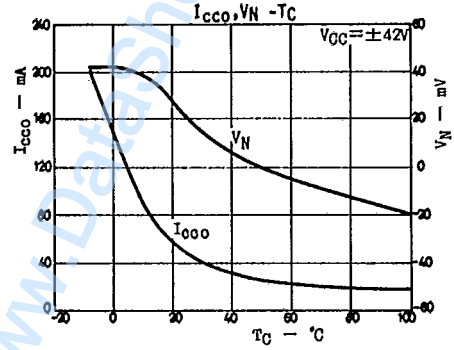


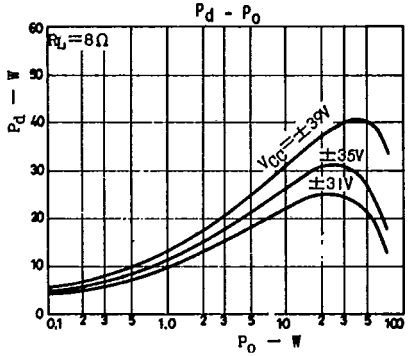












Typical Characteristics (Cont.)