

LINEAR INTEGRATED CIRCUITS DATA

AN215

AUDIO PREAMPLIFIER and POWER AMPLIFIER

The AN215 is a monolithic integrated audio preamplifier and power amplifier circuit designed for use in cassette tape recorders, radio receivers and interphones. It consists of a preamplifier, an automatic volume control, a pre-driver amplifier and a main amplifier circuit.

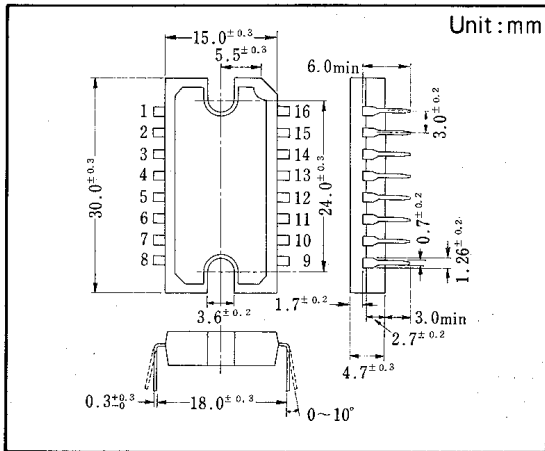
When the device is used in a cassette tape recorder, a whole circuit of recording and playback can be completed with this device by adding one external transistor in the preceding stage. The recorder output is taken out of the secondary winding of an output transformer and can be connected to a record/playback head in the same simple way as in a discrete circuit. An automatic recording level control circuit is also included in this device.

In radio receiver applications, the AN215 can be utilized as a complete audio power amplifier circuit for various kinds of radio receivers including high-class receivers with a tone control.

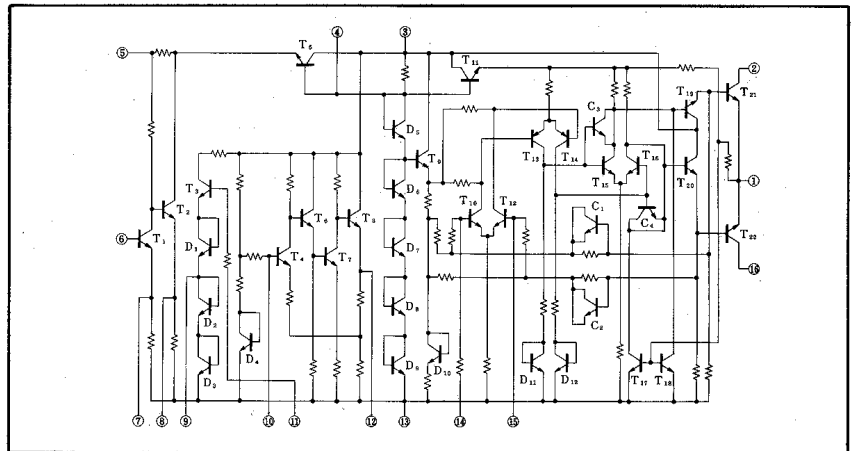
Features

- * Operation at Low Supply Voltage — down to 4 Volts.
- * Built-in Automatic Level Control Circuit.
- * Built-in Current Limiter Circuit — stable operation even with a large input signal.

Outline Drawing



Equivalent Circuit



Quick Reference Data

Item	Symbol	Value	Unit
Supply Voltage	V _{cc}	4~12	V
Power Output (non distortional)	P _o	1 (V _{cc} =6V)	W
		2 (V _{cc} =9V)	W
Voltage Gain	G _v	Preamplifier (With one discrete Transistor)	50
		Pre-driver	20
		Power amplifier	55
Automatic Level Control		40	dB

While every precaution has been taken in the preparation of this data sheet, the publisher assumes no responsibility for patent liability with respect to the use of the information contained herein.

Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit	Note
Operating Ambient Temperature Range	Topr	-20~+70	°C	
Storage Temperature Range	Tstg	-55~+150	°C	
Supply Voltage	V ₂₋₁ , V ₁₆₋₁	12	V	
	V ₃₋₁₃			
Total Current Consumption	I _{tot}	1	A	Peak Value
Total Power Dissipation	P _T	2	W	

Electrical Characteristics (Vcc=6V, Ta=25°C)

Item	Symbol	Conditions	Limits			Unit
			Min.	Typ.	Max.	
Total Quiescent Current	I _{co}				80	mA
Output Voltage	V _o	V _{IN} =0.1mV, f=1KHz	0.63	1	1.6	V
Maximum Power Output	P _o	D _{tot} =10%, f=1KHz	1			W
Total Distortion	D _{tot}	V _o =1V, f=1KHz			1.5	%
Noise Level	V _N	R _g =1KΩ			16	mV

