AUDIO AMPLIFIER

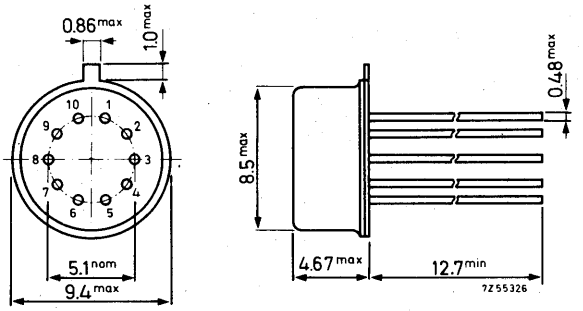
The TBA915 is a monolithic integrated a.f. amplifier designed for use in small communication receivers, where low battery drain is of paramount importance.
The output power of the device is 500 mW and the zero-signal current is only 2 mA (typ.).
The circuit can be squelched to a stand-by current of 0,4 mA.

QUICK REFERENCE DATA				
Supply voltage	V_P	nom.	12	V
Output power at R_L = 20 Ω	P_o	typ.	500	mW
Input signal for P_o = 500 mW	V_i	typ.	10	mV
Input impedance	R_i	typ.	9	kΩ
Total current (no signal)	I_{tot}	typ.	2	mA
(squelched)	I_{tot}	typ.	0,4	mA

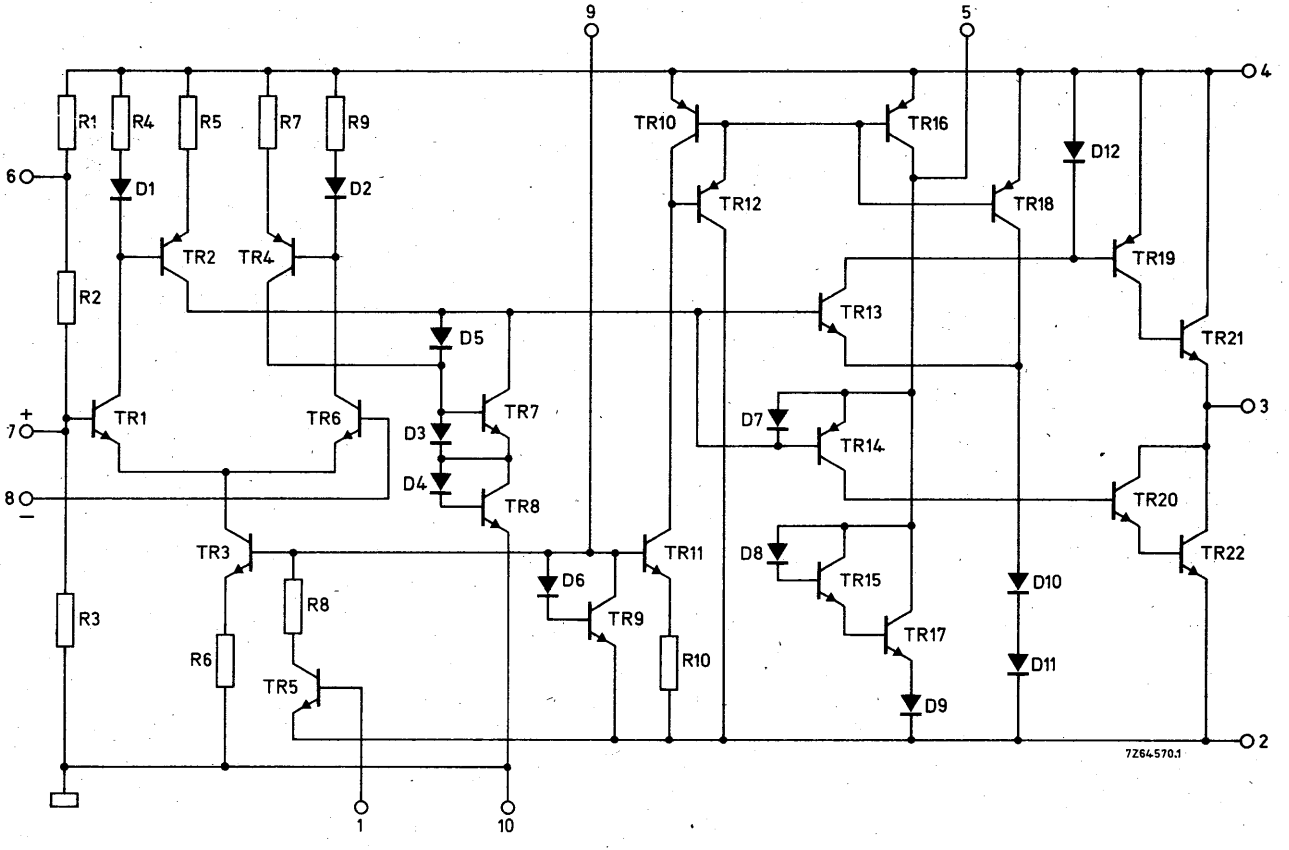
PACKAGE OUTLINE

Dimensions in mm

TO-74 (reduced height)



CIRCUIT DIAGRAM



RATINGS Limiting values in accordance with the Absolute Maximum System (IEC 134).

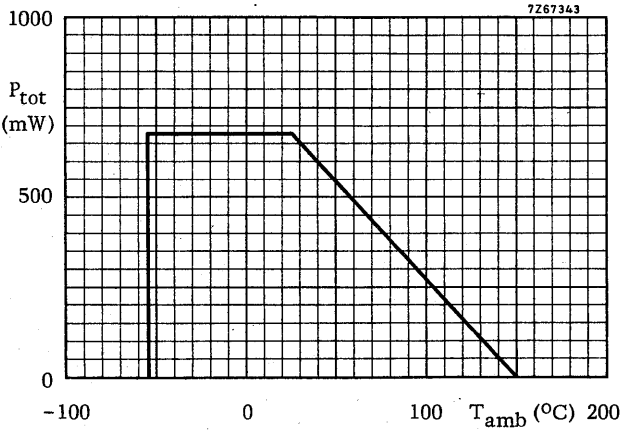
Voltages (pin 2 must be externally connected to pin 10)

Pin No. 4 voltage	V_{4-2}	max.	17	V
Pin No. 8 voltage	$\pm V_{8-7}$	max.	5	V
Pin No. 3 voltage	V_{3-2}	max.	17	V

Currents

Pin No. 4 current	I_4	max.	350	mA
Pin No. 3 current	$\pm I_3$	max.	350	mA
Pin No. 7 current	I_7	max.	0,5	mA
Pin No. 8 current	I_8	max.	0,5	mA
Pin No. 5 current	I_5	max.	5	mA
Pin No. 9 current	I_9	max.	5	mA
Pin No. 1 current	$+I_1$	max.	1	mA
	$-I_1$	max.	10	μA

Total power dissipation



Temperatures

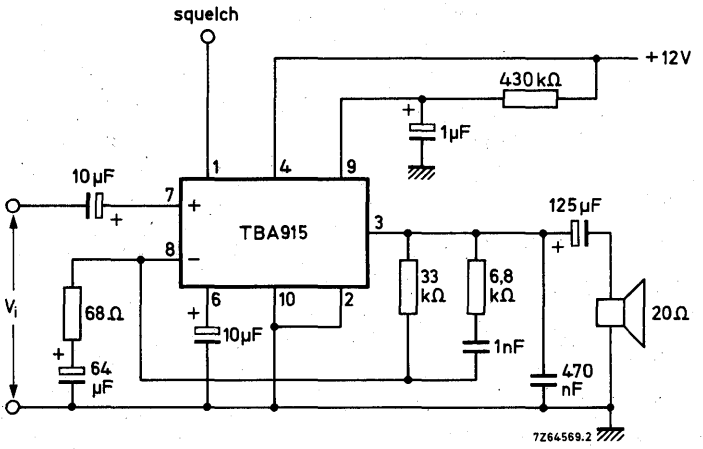
Storage temperature	T_{stg}	−55 to +125	°C
Operating ambient temperature see derating curve above	T_{amb}	−55 to +125	°C

CHARACTERISTICS at T_{amb} = 25 °C; V_P = 12 V

Measured in the test circuit below

Output power at d_{tot} = 5%	P_o	typ.	500	mW
Bandwidth (−3 dB)	B	>	6	kHz
Total current (d.c.)				
no signal	I_{tot}	typ.	2	mA
		<	3,7	mA
no signal with squelch	I_{tot}	typ.	0,4	mA
with signal at P_o = 500 mW	I_{tot}	typ.	72	mA
Total distortion at P_o = 500 mW	d_{tot}	typ.	2,5	%
		<	5	%
Input signal at P_o = 500 mW	V_i	typ.	10	mV
		<	15	mV
Input impedance	$\|Z_i\|$	typ.	9	kΩ
Signal-to-noise ratio related to P_o = 500 mW; R_S = 600 Ω; B = 300 Hz to 6 kHz	$\frac{S}{N}$	typ.	72	dB
Bias current	I_9	>	25	μA

Test circuit



SQUELCH REQUIREMENTS at I_9 = 25 μA

Squelch "on"	V_1	>	800	mV
	I_1	>	10	μA
Squelch "off"	V_1	<	400	mV