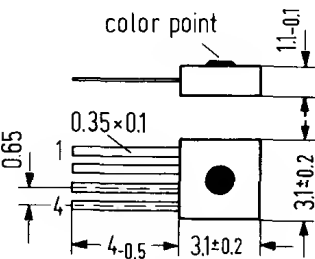


The integrated circuit TAA 131 is especially well suited for small battery-operated sets.

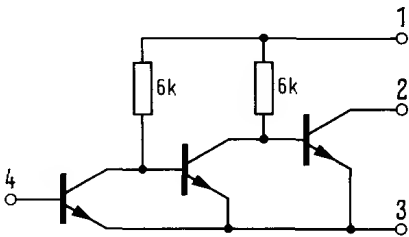
Type	Ordering code
TAA 131	Q61901-A131

Package outlines



Plastic coating (U 38)
Weight approx. .2 g
Dimensions in mm

Circuit diagram



Absolute maximum ratings

Supply voltage
Output collector current
Junction temperature
Storage temperature
Thermal resistance (air-system)

V_{cc}	5	V
I_2	12	mA
T_j	150	°C
T_s	-40 to +125	°C
R_{thSamb}	≤ 600	K/W

Range of operation

Supply voltage
Ambient temperature in operation

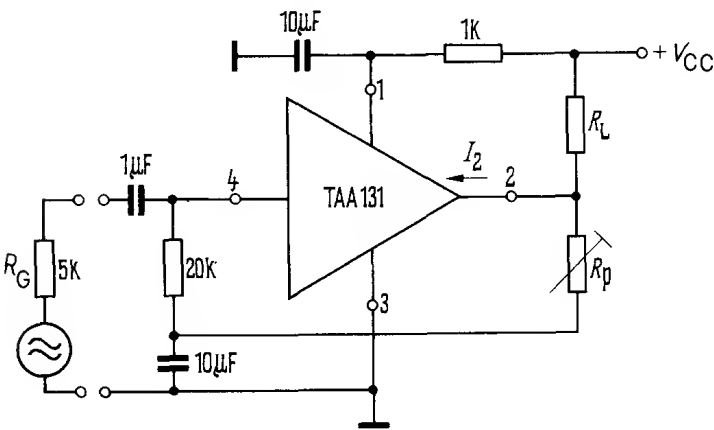
V_{cc}	1.3 to 5	V
T_{amb}	-20 to +70	°C

Electrical characteristics $T_{amb} = 25\text{ }^{\circ}\text{C}$
(Referring to the test circuit)

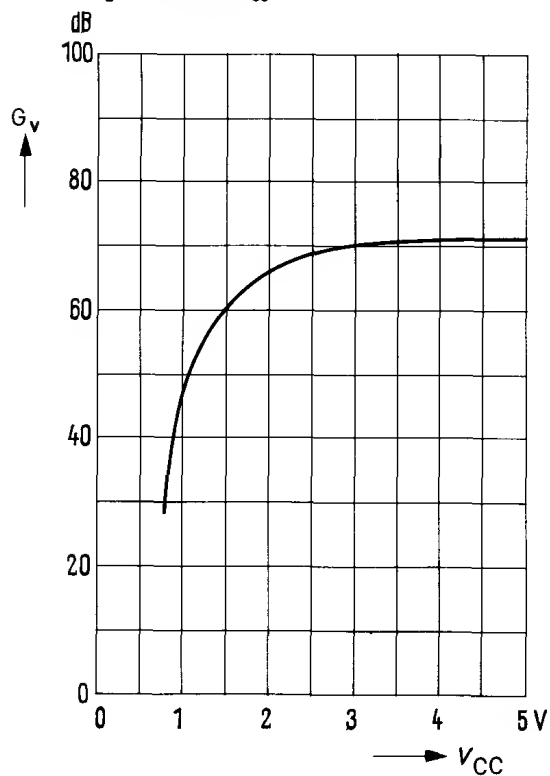
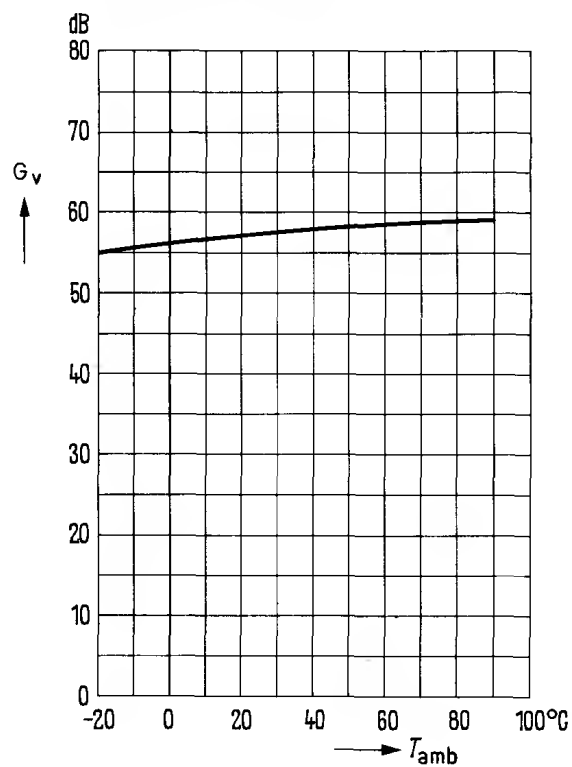
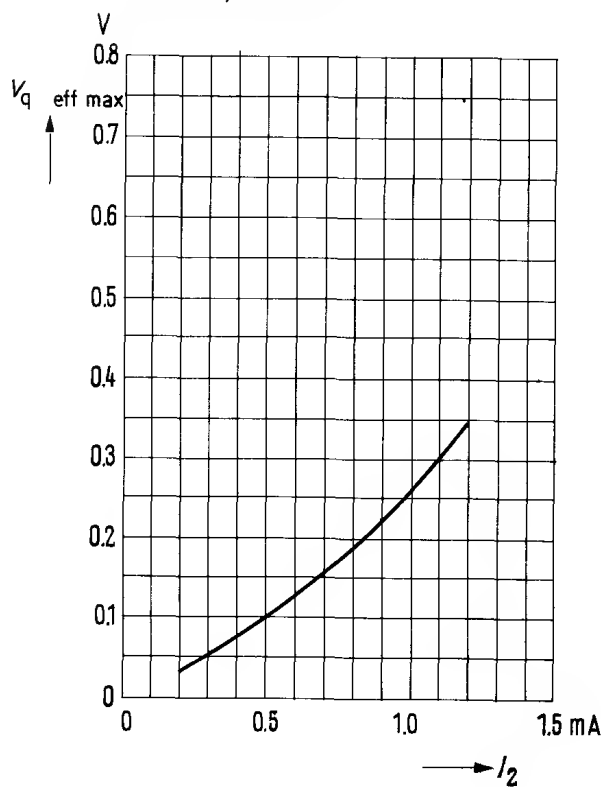
Pot.-resistance
Supply current ($V_{cc} = 1.3\text{ V}$)
Voltage gain ($f = 1\text{ kHz}$)
Harmonic distortion
($V_{q\text{ eff}} = .1\text{ V}$, $f = 1\text{ kHz}$)
Lower cutoff frequency (-3 db)
Upper cutoff frequency (-3 db)
Noise voltage
(referred to the input,
DIN 45405, $R_G = 5\text{ k}\Omega$)

	min	typ	max	
R_p	40	400	1000	$\text{k}\Omega$
I_{cc}			1.2	mA
G_v	50	57		dB
k			10	$\%$
f_l			40	Hz
f_u	20			kHz
V_n			5	μV

Test circuit



$V_{cc} = 1.3\text{ V}$
 $R_L = 500\text{ }\Omega$
Using R_p adjust I_2 to $.75\text{ mA}$

Voltage gain v. supply voltage $f = 1 \text{ kHz}, R_L = 500 \Omega$ Quiescent point set to
 $I_2 = .75 \text{ mA}/V_{cc} = 1.3 \text{ V}$ **Voltage gain v. amb. temperature** $V_{cc} = 1.3 \text{ V}, R_L = 500 \Omega, f = 1 \text{ kHz}$ Quiescent point set to $I_2 = .75 \text{ mA}$
at $T_{amb} = 25^\circ\text{C}$, using R_p **Output voltage v. current I_2** $V_{cc} = 1.3 \text{ V}, R_L = 500 \Omega,$ $f = 1 \text{ kHz}, k = 10\%$ **Voltage gain v. current I_2** $V_{cc} = 1.3 \text{ V}, R_L = 500 \Omega,$ $f = 1 \text{ kHz}$ 