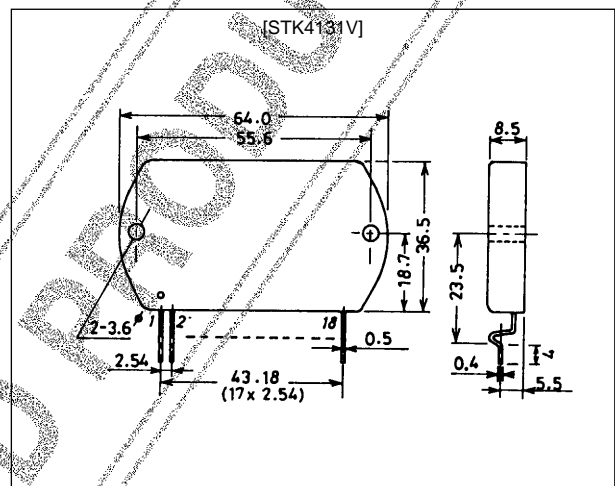


SANYO**STK4131V****AF Power Amplifier (Split Power Supply)
(20 W + 20 W min, THD = 0.08%)****Features**

- Built-in muting circuit cuts off various kinds of pop noises.
- Current mirror circuit provides low distortion (THD = 0.08%).
- Pin compatible with the STK4102II series, forming a series of products with output powers from 15 W/ch to 120 W/ch.

Package Dimensions

unit : mm

4040**Specifications****Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Condition	Rating	Unit
Maximum supply voltage	$V_{CC\ max}$		± 37	V
Thermal resistance	θ_{j-c}		2.6	°C/W
Junction temperature	$T_{j\ max}$		150	°C
Operating case temperature	T_c		125	°C
Storage temperature	T_{stg}		-30 to +125	°C
Available time for load shorted	t_s	$V_{CC} = \pm 24.5\ V, R_L = 8\ \Omega, f = 50\ Hz, P_O = 20\ W$	2	s

Recommended Operating Conditions at Ta = 25°C

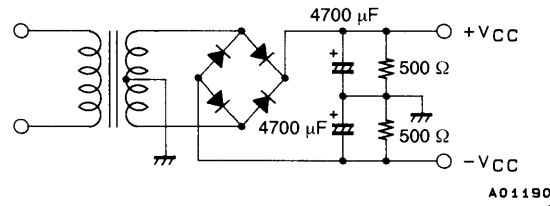
Parameter	Symbol	Condition	Rating	Unit
Recommended supply voltage	V_{CC}		± 24.5	V
Load resistance	R_L		8	Ω

Operating Characteristicsat Ta = 25°C, $V_{CC} = \pm 24.5\ V, R_L = 8\ \Omega, R_g = 600\ \Omega, VG = 40\ dB, R_L$: non-inductive load

Parameter	Symbol	Condition	Rating			Unit
			min	typ	max	
Quiescent current	I_{CCO}	$V_{CC} = \pm 29.5\ V$	20	40	100	mA
Output power	$P_O (1)$	THD = 0.08%, $f = 20\ Hz\ to\ 20\ kHz$	20			W
	$P_O (2)$	$V_{CC} = \pm 21.5\ V, THD = 0.2\%, R_L = 4\ \Omega, f = 1\ kHz$	20			W
Total harmonic distortion	THD	$P_O = 1\ W, f = 1\ kHz$			0.08	%
Frequency response	f_L, f_H	$P_O = 1\ W, \begin{matrix} +0 \\ -3 \end{matrix} dB$		20 to 50 k		Hz
Input resistance	r_i	$P_O = 1\ W, f = 1\ kHz$		55		k Ω
Output noise voltage	V_{NO}	$V_{CC} = \pm 29.5\ V, R_g = 10\ k\Omega$			1.2	mVrms
Neutral voltage	V_N	$V_{CC} = \pm 29.5\ V$	-70	0	+70	mV
Muting voltage	V_M		-2	-5	-10	V

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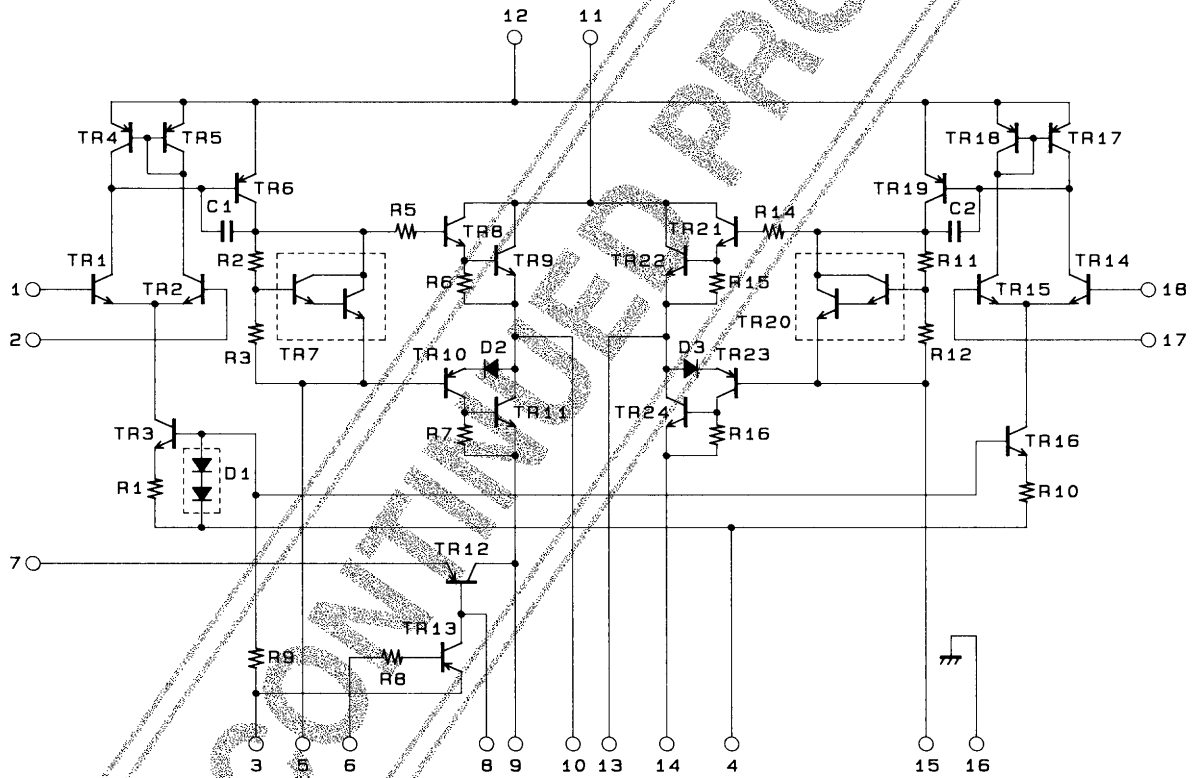


Specified Transformer Power Supply (RP-25 equivalent)

Notes

- Use a constant voltage power supply for the test power supply unless otherwise noted.
- Use the transformer power supply shown in the figure above when measuring the available time for load shorted and the output noise voltage.
- The output noise voltage is the peak value measured with an averaging rms scale volt meter (VTVM). A 50 Hz AC stabilized power supply should be used to eliminate the effects of AC primary line flicker noise when an AC power supply is used.

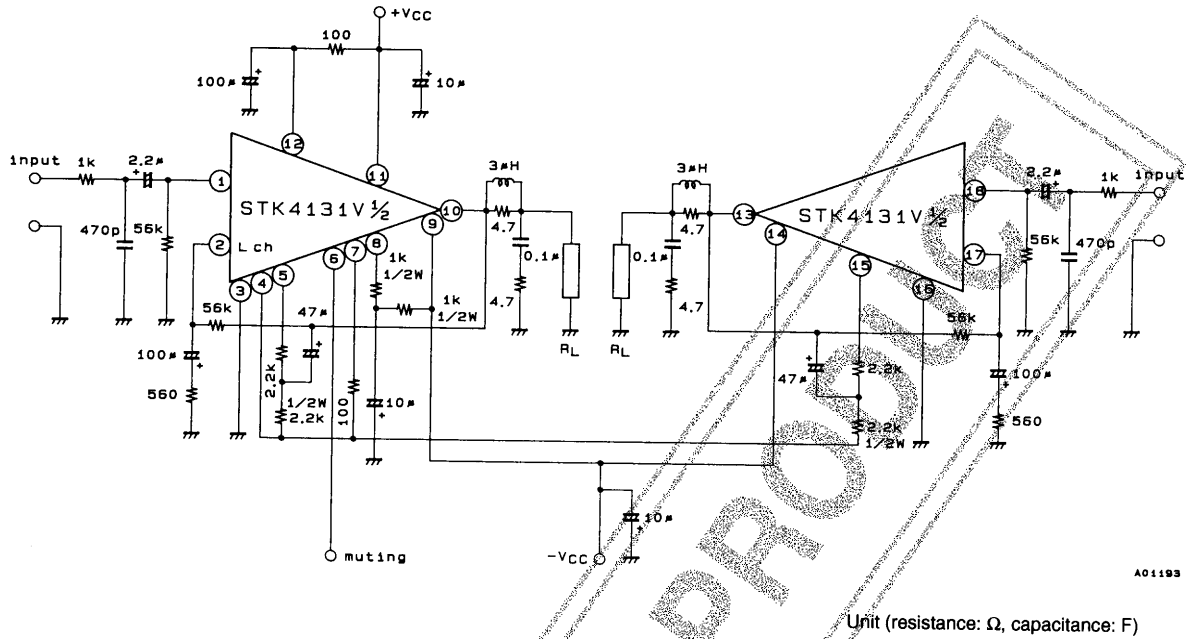
Equivalent Circuit



A01191

STK4131V

Sample Application Circuit: 20 W (minimum) 2-channel AF power amplifier



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