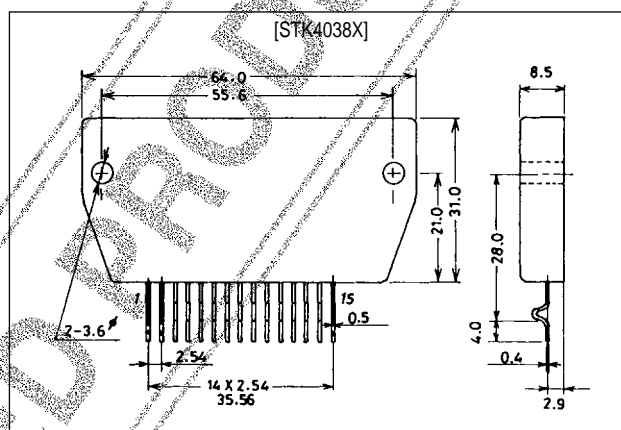


SANYO**STK4038X****AF Power Amplifier (Split Power Supply)
(60W min, THD = 0.008%)****Features**

- Compact package for thin-type audio sets
- Member of pin-compatible series with outputs of 30 to 100W
- Easy heatsink design to disperse heat generated in thin-type stereo sets
- Current mirror circuit for low 0.008% total harmonic distortion
- External supply switch-on and switch-off shock noise muting, load short-circuit protection, thermal shutdown and other circuits can be tailored-designed.

Package Dimensions

unit: mm

4062**Specifications****Maximum Ratings** at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC\text{max}}$		± 57	V
Thermal resistance	θ_{j-c}		1.4	$^\circ\text{C}/\text{W}$
Junction temperature	T_j		150	$^\circ\text{C}$
Operating substrate temperature	T_c		125	$^\circ\text{C}$
Storage temperature	T_{stg}		-30 to +125	$^\circ\text{C}$
Available time for load short-circuit	t_L	$V_{CC} = \pm 39.5\text{V}$, $R_L = 8\Omega$, $f = 50\text{Hz}$, $P_O = 60\text{W}$	1	s

Recommended Operating Conditions at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V_{CC}		± 39.5	V
Load resistance	R_L		8	Ω

Operating Characteristics

at $T_a = 25^\circ\text{C}$, $V_{CC} = \pm 39.5\text{V}$, $R_L = 8\Omega$ (noninductive load), $R_g = 600\Omega$, $V_G = 40\text{dB}$, 100kHz LPF on

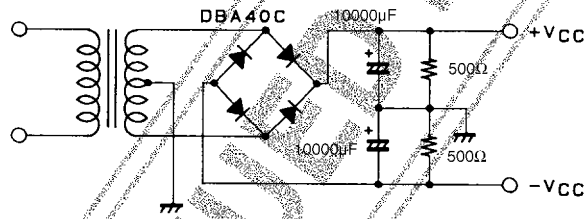
Parameter	Symbol	Conditions	min	typ	max	Unit
Quiescent current	I_{CCO}	$V_{CC} = \pm 47\text{V}$	15		120	mA
Output power	$P_{O(1)}$	THD = 0.008%, $f = 20\text{Hz}$ to 20kHz	60	-	-	W
	$P_{O(2)}$	$V_{CC} = \pm 33.5\text{V}$, THD = 0.04%, $R_L = 4\Omega$, $f = 1\text{kHz}$	60	-	-	W
Total harmonic distortion	THD	$P_O = 1.0\text{W}$, $f = 1\text{kHz}$	-		0.008	%
Frequency response	f_L, f_H	$P_O = 1.0\text{W}$, $_{-3}^{\text{+0}}$ dB	-	20 to 50k	-	Hz
Input impedance	r_i	$P_O = 1.0\text{W}$, $f = 1\text{kHz}$	-	55	-	k Ω
Output noise voltage ²	V_{NO}	$V_{CC} = \pm 47\text{V}$, $R_g = 10\text{k}\Omega$	-	-	1.2	mVrms
Neutral voltage	V_N	$V_{CC} = \pm 47\text{V}$	-70	0	+70	mV

Notes.

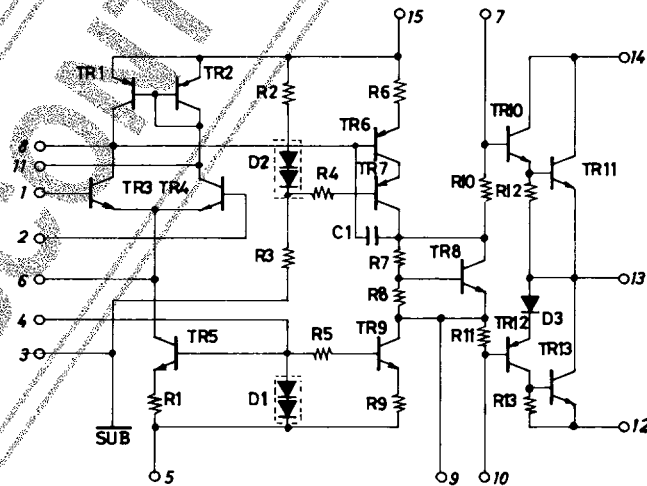
All tests are measured using a constant-voltage supply unless otherwise specified.

1. Available time for load short-circuit and output noise voltage are measured using the transformer supply specified below.
2. The output noise voltage is the peak value of an average-reading meter with an rms value scale. The noise voltage waveform does not include any pulse noise.

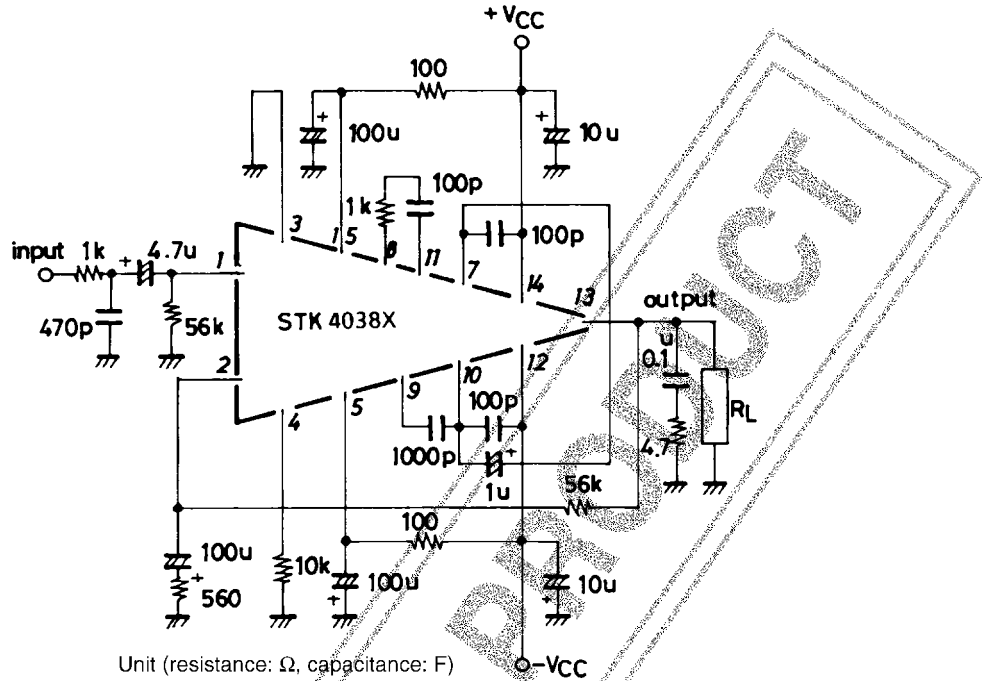
Specified Transformer Supply (MG-200 or Equivalent)



Equivalent Circuit



Sample Application Circuit (60W min AF Power Amplifier)



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