Ordering number : EN4586A

Thick Film Hybrid IC

SANYO

No. 4586A

STK4221V

2-Channel 80 W min AF Power Amplifier (Split Power Supply)

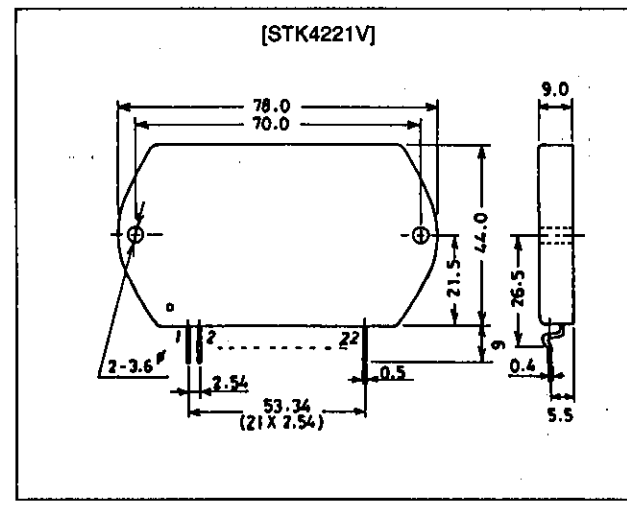
Features

- The inclusion of a muting circuit on-chip allows all types of impulse noise to be excluded.
- Current mirror circuit application reduces distortion to 0.008%.
- Pin compatible with the STK4201II Series (THD = 0.4%) and the STK4141X Series (THD = 0.02%)

Package Dimensions

unit: mm

4086A



Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol	Condition	Rating	Unit
Maximum supply voltage	V_{CC} max		±65	V
Thermal resistance	θj-c		1.4	°C/W
Junction temperature	Tj		150	°C
Operating case temperature	Tc		125	°C
Storage temperature	Tstg		–30 to +125	°C
Available time for load shorted	t_S*	V_{CC} = ±45 V, R_L = 8 Ω, f = 50 Hz, P_O = 80 W	1	sec

Note: Use a constant voltage power supply as the test power supply unless otherwise specified.

* Use the transformer power supply shown on the next page when measuring the available time for load shorted and the output noise voltage.

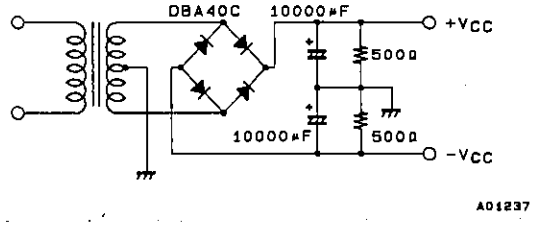
Recommended Operating Conditions at Ta = 25°C

Parameter	Symbol	Condition	Rating	Unit
Recommended supply voltage	V_{CC}		±45	V
Load resistance	R_L		8	Ω

Operating Characteristics at Ta = 25°C, V_{CC} = ±45 V, R_L = 8 Ω (noninductive load), R_G = 600 Ω, VG = 40 dB

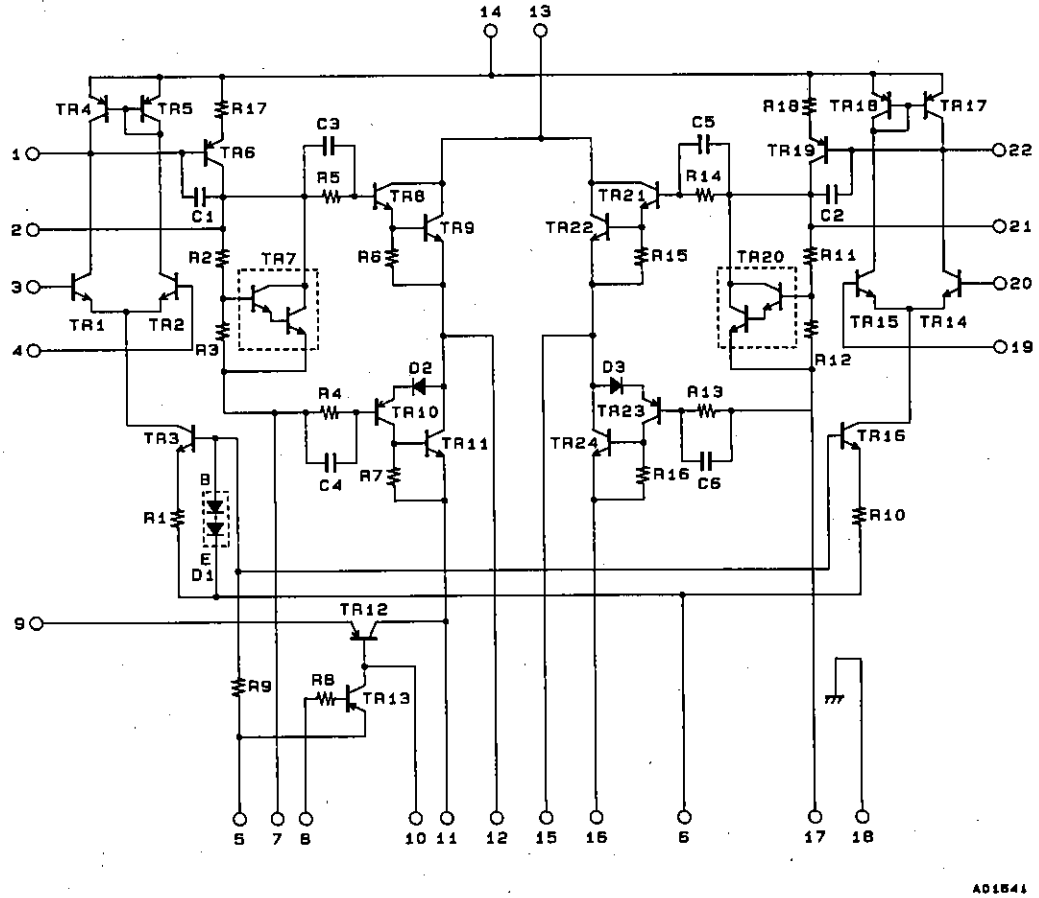
Parameter	Symbol	Condition	Rating			Unit
			min	typ	max	
Quiescent current	I_{CCO}	V_{CC} = ±54 V	20	40	100	mA
Output power	P_O	THD = 0.08%, f = 20 Hz to 20 kHz	80			W
Total harmonic distortion	THD	P_O = 1.0 W, f = 1 kHz			0.08	%
Frequency response	f_L, f_H	P_O = 1.0 W, $^{+0}_{-3}$ dB		20 to 50 k		Hz
Input resistance	r_I	P_O = 1.0 W, f = 1 kHz		55		kΩ
Output noise voltage	V_{NO}*	V_{CC} = ±54 V, Rg = 10 kΩ			1.2	mVrms
Neutral voltage	V_N	V_{CC} = ±54 V	−70	0	+70	mV
Muting voltage	V_M		−2	−5	−10	V

Note: Use a constant voltage power supply as the test power supply unless otherwise specified.
* The output noise voltage is the peak value measured with an averaging rms scale volt meter. The noise voltage waveform should not include pulse noise.



Specified Transformer Power Supply (MG-200 equivalent)

Equivalent Circuit



Equivalent Circuit
Sample Application Circuit: 2-Channel 80 W min AF Power Amplifier