

STK4201V

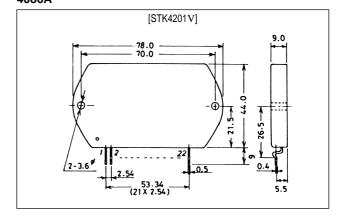
AF Power Amplifier (Split Power Supply) (60W + 60W min, THD = 0.08%)

Features

- The STK4201II series (THD=0.4%), STK4201V series (THD=0.08%) and STK4141X series (THD=0.02%) are pin-compatible. Once the PCB pattern is designed, you can easily satisfy the requirements for new sets simply by changing the IC.
- Built-in muting circuit to cut off various kinds of pop noise.
- Current mirror circuit application reduces distortion to 0.08%

Package Dimensions

unit: mm **4086A**



Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol Conditions		Ratings	Unit
Maximum supply voltage	V _{CC} max		±57	V
Thermal resistance	<i>θ</i> j-c		1.5	°C/W
Junction temperature	Tj		150	°C
Operating substrate temperature	Tc		125	°C
Storage temperature	Tstg		-30 to +125	°C
Available time for load short-circuit	t _s	$V_{CC} = \pm 39V, R_L = 8\Omega,$ f = 50Hz, $P_O = 60W$	1	S

Recommended Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V _{CC}		±39	V
Load resistance	R_L		8	Ω

Operating Characteristics at Ta = 25 °C, V_{CC} = $\pm 39V$, R_L = 8Ω , Rg = 600Ω , VG = 40dB, R_L : non-inductive load

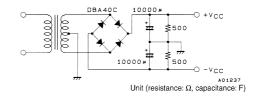
Parameter	Symbol	Conditions	min	typ	max	Unit
Quiescent current	Icco	V _{CC} = ±47V	20	40	100	mA
Output power	P _O	THD = 0.08%, f = 20Hz to 20kHz	60			W
Total harmonic distortion	THD	P _O = 1.0W, f = 1kHz			0.08	%
Frequency response	f _L , f _H	$P_0 = 1.0W, {}^{+0}_{-3} dB$		20 to 50k		Hz
Input impedance	r _i	P _O = 1.0W, f = 1kHz		55		kΩ
Output noise voltage	V _{NO}	$V_{CC} = \pm 47V$, $Rg = 10k\Omega$			1.2	mVrms
Neutral voltage	V _N	V _{CC} = ±47V	-70	0	+70	mV
Muting voltage	V _M		-2	-5	-10	V

Notes

For power supply at the time of test, use a constant-voltage power supply unless otherwise specified.

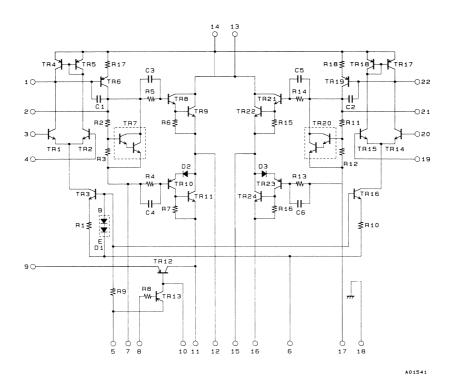
For measurement of the available time for load short-circuit and output noise voltage, use the specified transformer power supply shown right.

The output noise voltage is represented by the peak value on rms scale (VTVM) of average value indicating type. For AC power supply, use an AC stabilized power supply (50Hz) to eliminate the effect of flicker noise in AC primary line.

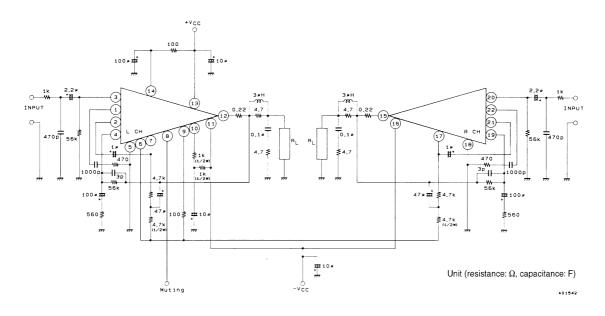


Specified Transformer Power Supply (Equivalent to MG-200)

Equivalent Circuit



Sample Application Circuit: 60W min 2channel AF Power Amplifier



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees, jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.