Thick Film Hybrid IC

STK4211V



2-Channel 70 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		±62	V
Thermal resistance	өј-с		1.5	°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	ts*	$V_{CC} = \pm 43 \text{ V}, \text{ R}_{L} = 8 \Omega, \text{ f} = 50 \text{ Hz}, \text{ P}_{O} = 70 \text{ W}$	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 = $25^{\circ}C$

Parameter	Symbol	Condition	Rating	Unit
Recommended supply voltage	V _{CC}		±43	V
Load resistance	RL		8	Ω

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Operating Characteristics at Ta = 25°C, V_{CC} = ±43 V, R_L = 8 Ω (noninductive load), R_G = 600 Ω , VG = 40 dB

Parameter	Cumhal	Condition		Rating		
	Symbol		min	typ	max	Unit
Quiescent current	I _{CCO}	V _{CC} = ±50.5 V	20	40	100	mA
Output power	PO	THD = 0.08%, f = 20 Hz to 20 kHz	70			W
Total harmonic distortion	THD	P _O = 1.0 W, f = 1 kHz			0.08	%
Frequency response	f _L , f _H	$P_0 = 1.0 \text{ W}, \frac{+0}{-3} \text{ dB}$		20 to 50 k		Hz
Input resistance	r _i	P _O = 1.0 W, f = 1 kHz		55		kΩ
Output noise voltage	V _{NO} *	$V_{CC} = \pm 50.5 \text{ V}, \text{Rg} = 10 \text{ k}\Omega$			1.2	mVrms
Neutral voltage	V _N	V _{CC} = ±50.5 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





Sample Application Circuit: 2-Channel 70 W min AF Power Amplifier

Unit (resistance: Ω, capacitance: F)

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