

STK4101 II SERIES

thick film hybrid IC

2-CHANNEL AF POWER AMP.

Applications

- STK4101II: 6W min AF power amp.
- STK4111II: 10W min AF power amp.
- STK4121II: 15W min AF power amp.
- STK4131II: 20W min AF power amp.
- STK4141II: 25W min AF power amp.
- STK4151II: 30W min AF power amp.
- STK4161II: 35W min AF power amp.
- STK4171II: 40W min AF power amp.
- STK4181II: 45W min AF power amp.
- STK4191II: 50W min AF power amp.

Feature

- Built-in muting transistor

MAXIMUM RATINGS / $T_a=25^\circ\text{C}$

	STK 4101II	STK 4111II	STK 4121II	STK 4131II	STK 4141II	STK 4151II	STK 4161II	STK 4171II	STK 4181II	STK 4191II	unit	
Supply Voltage	$V_{CC\max}$	± 20.5	± 26	± 30.5	± 34.5	± 39	± 42	± 45	± 48	± 50	± 52.5	V
Thermal Resistance	θ_{j-c}	5	4	2.6	2.6	2.6	2.1	2.1	1.8	1.8	1.8	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	150	$^\circ\text{C}$
Operating Case Temperature	T_c	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	-30 to +125	$^\circ\text{C}$
Available Time of Load Shorted	t	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	2	sec

RECOMMENDED OPERATING CONDITIONS / $T_a=25^\circ\text{C}$

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Recommended Supply Voltage	± 13.2	± 17	± 20	± 23	± 26	± 27.5	± 30	± 32	± 33.5	± 35	V
Load Resistance	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	8 ohm

OPERATING CHARACTERISTICS / $T_a=25^\circ\text{C}$, recommended operating condition $R_g=600\text{ohm}$, $V_G=40\text{dB}$,

RL: noninductive load

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Output Power	P_o	6	10	15	20	25	30	35	40	45	50 W min
Total Harmonic Distortion	THD	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	0.3 % max
Frequency Characteristic	f_L, f_H	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	20 to 50k Hz
Input Impedance	r_i	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	55k ohm
Output Noise Voltage	V_{NO}	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	1.2 mVrms max
Quiescent Current	I_{CCO}	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	100 mA max
Middle Point Voltage	V_N	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	-70 to +70 mV
Muting Voltage	V_M	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	\rightarrow	-5 V



