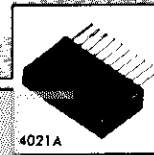


STK4017, 4019,
4021, 4023, 4025

thick film hybrid IC

6.5 TO 25W MIN
AF POWER AMP



Fabricated on the IMST substrate of our own originality and designed for use in intermediate-power, single-channel, single-supply voltage amplifiers. Their packages are made much more compact than those of the Type Nos. heretofore in use, thereby meeting the requirements for making the set smaller and slimmer. They are especially suited for use in electronic organs or electric pianos.

Features

- Pin assignment common to all Type Nos.
- No special muting circuit required because of small pop noise at the time of power supply ON/OFF.
- Since V_{CC} max is greatly improved, cost reduction can be attained by allowing a margin in transformer regulation.
- Capable of connecting tone control circuit.

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

		STK 4017	STK 4019	STK 4021	STK 4023	STK 4025	unit
Maximum Supply Voltage	V_{CC} max Pins 0 to 8	45	54	64	73	80	V
Operating Case Temperature	T_C	→	→	→	→	105	$^\circ\text{C}$
Storage Temperature	T_{stg}	→	→	→	→	-30 to +105	$^\circ\text{C}$
Available Time for Load Shorted (in specified conditions)	t_s	→	→	→	→	2	sec

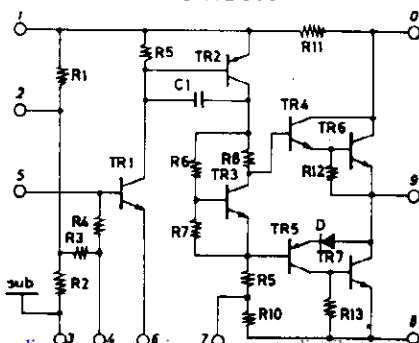
RECOMMENDED OPERATING CONDITIONS / $T_a=25^\circ\text{C}$

		STK 4017	STK 4019	STK 4021	STK 4023	STK 4025	unit
Recommended Supply Voltage	V_{CC}	26.4	32	38	44	48	V
Load Resistance	R_L	→	→	→	→	8	ohm

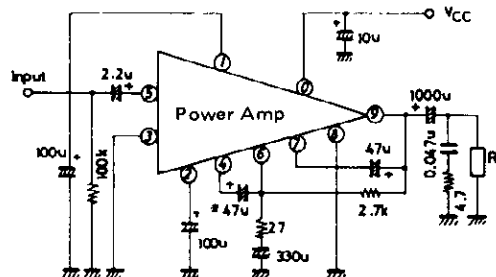
OPERATING CHARACTERISTICS / $T_a=25^\circ\text{C}$, $V_{CC}=26.4\text{V}$, $R_L=8\Omega$, $R_g=600\Omega$, $V_G=40\text{dB}$, at specified test circuit (based on APPLICATION CIRCUIT)

		STK 4017	STK 4019	STK 4021	STK 4023	STK 4025	unit
Quiescent Current	I_{CCO}	→	→	→	→	50	mAmax
Output Power	$PO(1)$ THD=1.0%, 6.5	→	10	15	20	25	Wmin
	$PO(2)$ THD=1.0%, 3.25	→	5	7.5	10	12.5	Wmin
Total Harmonic Distortion	THD $P_O=0.1\text{W}$, f=1kHz	→	→	→	→	0.3	% max
	THD $P_O=0.1\text{W}$, f=50 to 20kHz	→	→	→	→	→	→
Frequency Response	f_L, f_H $P_O=0.1\text{W}$ -3dB	→	→	→	→	30 to 100k	Hz
Input Resistance	r_i $P_O=0.1\text{W}$	→	→	→	→	100k	ohm
Output Noise Voltage	V_{NO} $V_{CC}=37\text{V}$, $R_g=10\text{k}\Omega$	→	→	→	→	1.5	mVrms max

EQUIVALENT CIRCUIT



APPLICATION: 6.5 to 25Wmin AF power amp.



*This bootstrap capacitor is required to produce increased input impedance.

