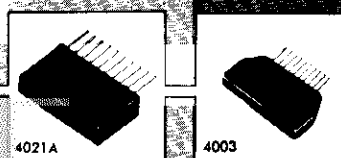


Case outline: 4021A, 4023, 4025  
**STK4017, 4019,**  
**4021, 4023, 4025**

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

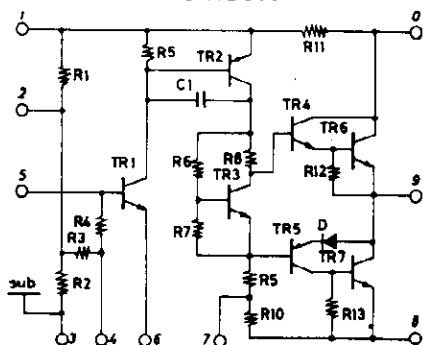
**RECOMMENDED OPERATING CONDITIONS /  $T_a=25^\circ\text{C}$**

		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

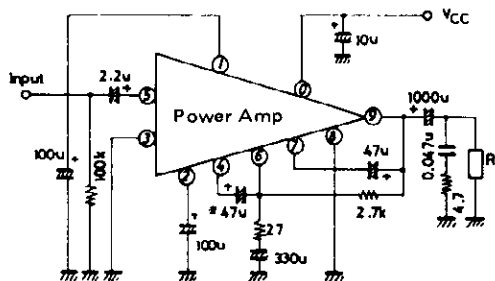
**OPERATING CHARACTERISTICS /  $T_a=25^\circ\text{C}$ ,  $V_{CC}=26.4\text{V}$ ,  $R_L=8\Omega$ ,  $R_g=600\Omega$ ,  $V_G=40\text{dB}$ , at specified test circuit (based on APPLICATION CIRCUIT)**

		STK 4017	STK 4019	STK 4021	STK 4023	STK 4025	unit
Quiescent Current	$I_{CCO}$	→	→	→	→	50	mAmax
Output Power	$P_{O(1)}$ THD=1.0%, 6.5	→	10	15	20	25	Wmin
	$P_{O(2)}$ 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.