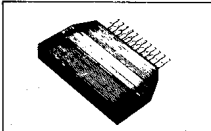


No.937



# STK8270 II

Thick Film Hybrid Integrated Circuit  
 70W MIN AF POWER AMP. OUTPUT STAGE (DUAL SUPPLIES)  
 WITH BUILT-IN QUASI CLASS A BIAS CIRCUIT

## Features

1. Switching distortion peculiar to class B amp. is zero.
2. Since power stage, bias controller, and temperature compensator are incorporated on the IMST substrate having good thermal conduction, no complicated temperature compensation using thermistor, etc. is required, thereby enabling good thermal stability.
3. By setting bias current externally, optimum conditions can be set.
4. 3-stage Dralington power pack.

## Maximum Ratings at Ta=25°C

Parameter	Symbol	Value	Unit
Maximum Supply Voltage	$V_{CCmax}$	$\pm 63$	V
Thermal Resistance	$\theta_{j-c}$	1.3	°C/W
Collector Current	$I_C$	10	A
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-30 to +105	°C
Available Time for Load Shorted	$t_s$	1	sec

$V_{CC} = \pm 44V^*, f = 50Hz, P_o = 70W, R_L = 8ohm$

## Recommended Operating Conditions at Ta=25°C

Parameter	Value	Unit
Recommended Supply Voltage	$\pm 44$	V
Load Resistance	8	ohm

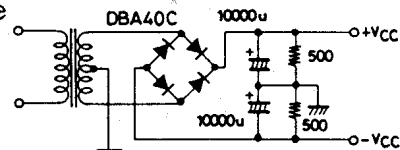
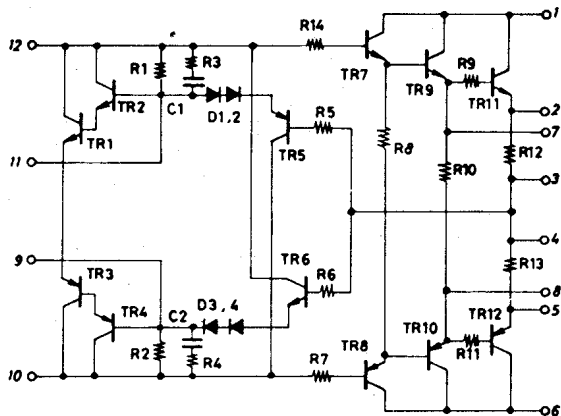
## Operating Characteristics at Ta=25°C, $V_{CC} = \pm 44V, R_L = 8ohm, R_g = 600ohm, V_G = 36.7dB$ , at specified test circuit (based on Sample Application Circuit)

Parameter	Symbol	min	typ	max	Unit
Quiescent Current	$I_{cco}$	$V_{CC} = \pm 50V^{**}$		70	mA
Output Power	$P_o$	THD=0.005%, f=20Hz to 20kHz	70		W
Total Harmonic Distortion	THD(1)	$P_o = 70W, f = 20Hz$ to 20kHz	0.004	0.005	%
			0.01	%	
Emitter Resistance	$R_E$	0.18	0.22	0.30	ohm

\*:For measuring available time for load shorted, use the specified transformer power supply shown right.

\*\* :Maximize semifixed resistor (VR1).

## Equivalent circuit



Specified Transformer Power Supply (Equivalent to Tango MG-200)

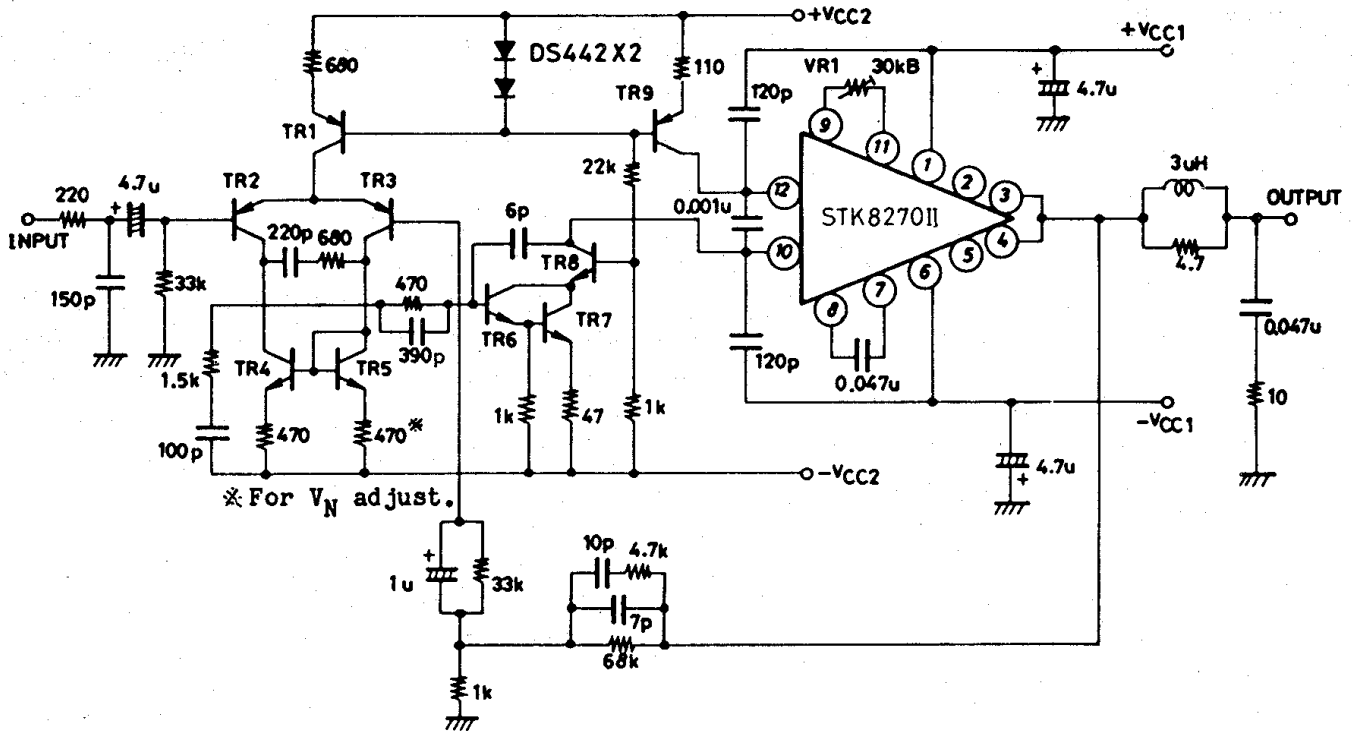
## Case Outline 4020 (unit:mm)



These specifications are subject to change without notice.

# STK8270II

## Sample Application Circuit : 70W min AF Power Amp.



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