

No.3671\*

## STK4171X

### 2-Channel AF Power Amp

#### **Preliminary**

Case Outline: 22 pins (See attached case outline drawing.)

Function: Dual-channel AF power amp

Use: 40W audio use

Feature: Built-in muting transistor

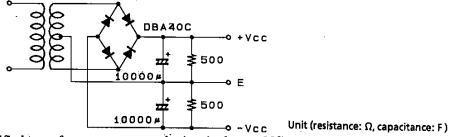
Maximum Ratings at Ta = 25°C				unit
Supply Voltage	$v_{cc}$		±49.5	V
Thermal Resistance	hetaj-c		1.8	°C/W
Junction Temperature	Tj		150	$^{\circ}\mathrm{C}$
Operating Case Temperature	$\mathbf{T}_{\mathbf{C}}$		125	$^{\circ}\mathrm{C}$
Storage Temperature	Tstg		-30  to  +125	$^{\circ}\mathrm{C}$
Available Time for Load Shorted	t <sub>s</sub> %1	$V_{CC} = \pm 33V, R_L = 8\Omega, f = 50Hz, Po = 40W$	2	S

Operating Characteristics at  $Ta = 25^{\circ}C$ ,  $R_L = 8\Omega$ ,  $R_g = 600\Omega$ , VG = 40 dB,

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	R <sub>L</sub> : non-inductive load,100kHz LPF ON			typ	max	unit			
Quiescent Current	Icco	$V_{CC} = \pm 39.5V$	50	100	150	mA			
Output Power	Po (1)	$V_{CC} = \pm 33V, f = 20Hz \text{ to } 20kHz,$ THD=0.02%	40			W			
	Po (2)	$V_{CC} = \pm 28.5 \text{V,f} = 1 \text{kHz,THD} = 0.08\%, R_L = 4\Omega$	45			W			
Total Harmonic Distortion	THD	$V_{CC} = \pm 33 V, Po = 1.0 W, f = 1 kHz$			0.02	%			
Frequency Characteristic	$f_L, f_H$	$V_{CC} = \pm 33V, Po = 1.0W, \pm \frac{0}{3} dB$	20	0 to 50	k	Hz			
Input Impedance	$\mathbf{r_i}$	$V_{CC} = \pm 33V, Po = 1.0W, f = 1kHz$		55		${f k}\Omega$			
Output Noise Voltage	V <sub>NO</sub> ×2	$V_{CC} = \pm 39.5 \text{V,Rg} = 10 \text{k}\Omega$			1,2 r	nVrms			
Midpoint Voltage	$V_{\mathbf{N}}$	$V_{CC} = \pm 39.5V$	-70	0	+70	mV			
Muting Voltage	$V_{M}$		2	-5	-10	V			

#### Remarks

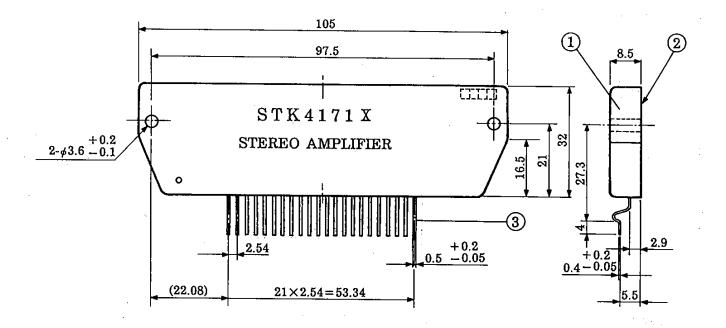
- · For power supply at the time of test, use a constant-voltage power supply unless otherwise specified.
- \*1 · For measurement of the available time for load shorted and output noise voltage, use the specified transformer power supply shown below.
- \*2 · The output noise voltage is represented by the peak value on rms scale (VTVM) of average value indicating type. For AC power supply, use an AC stabilized power supply (50Hz) to eliminate the effect of flicker noise in AC primary line.



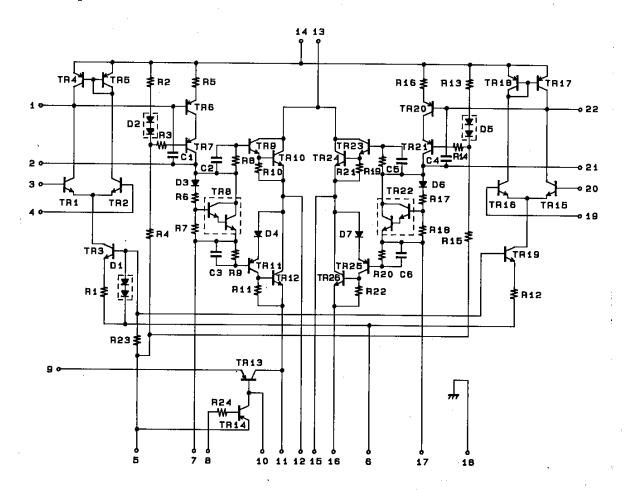
Specified transformer power supply (equivalent to MG-200)

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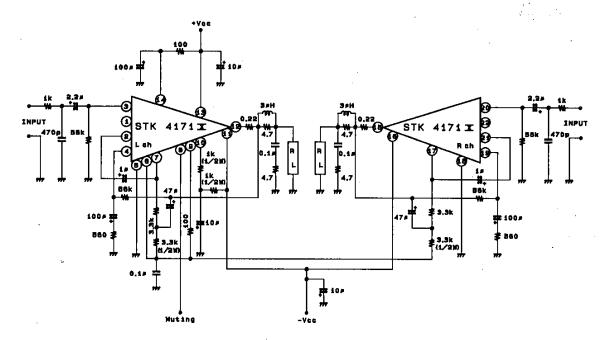
# Package Dimensions (unit: mm)



### Internal Equivalent Circuit



#### **Test Circuit**



Unit (resistance:  $\Omega$ , capacitance: F)

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