STK4164II

Thick Film Hybrid IC

2-Channel AF Power Amp

TENTATIVE

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

Function : 2-channel AF power amp

Use : 35W audio use

Feature : Built-in protection relay driver

Maximum Ratings at Ta = 25°C

				unit
Supply Voltage	V_{CC}		±45	V
Thermal Resistance	θj-c		2.1	°C/W
Junction Temperature	Tj		150	°C
Operating Case Temperature	T_C		125	°C
Storage Temperature	Tstg		−30 to +125	°C
Available Time for Load Shorted	t	V_{CC} = ±30.5V, R_L = 8Ω, f = 50Hz, Po = 35W	0.5	sec
Protection Detection Ratings		See the next page.		

Operating Characteristics at Ta = 25°C, R_L = 8Ω, Rg = 600Ω, VG = 40dB,
R_L : non-inductive load

			min	typ	max	unit
Output Power	Po (1)	V_{CC} = ±30.5V, f = 20Hz to 20kHz, THD = 0.4%	30			W
	Po (2)	V_{CC} = ±36.5V, f = 1kHz, THD = 1.0%	35			W
Total Harmonic Distortion	THD	V_{CC} = ±30.5V, f = 1kHz, Po = 1.0W			0.4	%
Frequency Characteristic	f_L, f_H	V_{CC} = ±30.5V, Po = 1.0W, $\pm^{0}_{3}$ dB		20 to 50k		Hz
Input Impedance	ri	V_{CC} = ±30.5V, f = 1kHz, Po = 1.0W		55		kΩ
Output Noise Voltage	V_{NO}	V_{CC} = ±36.5V, Rg = 10kΩ			1.2	mVrms
Quiescent Current	Icco	V_{CC} = ±36.5V	20	40	100	mA
Midpoint Voltage	V_N	V_{CC} = ±36.5V	−70	0	+70	mV
Current Detect Voltage	±Dc			±1.1		V
Available Time for Load Shorted	t	V_{CC} = ±30.5V, f = 1kHz, Po = 1.0W			0.5	sec

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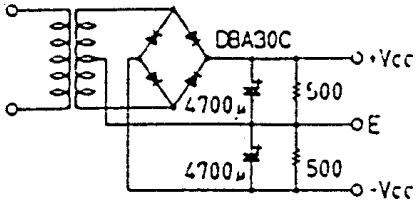
Remarks

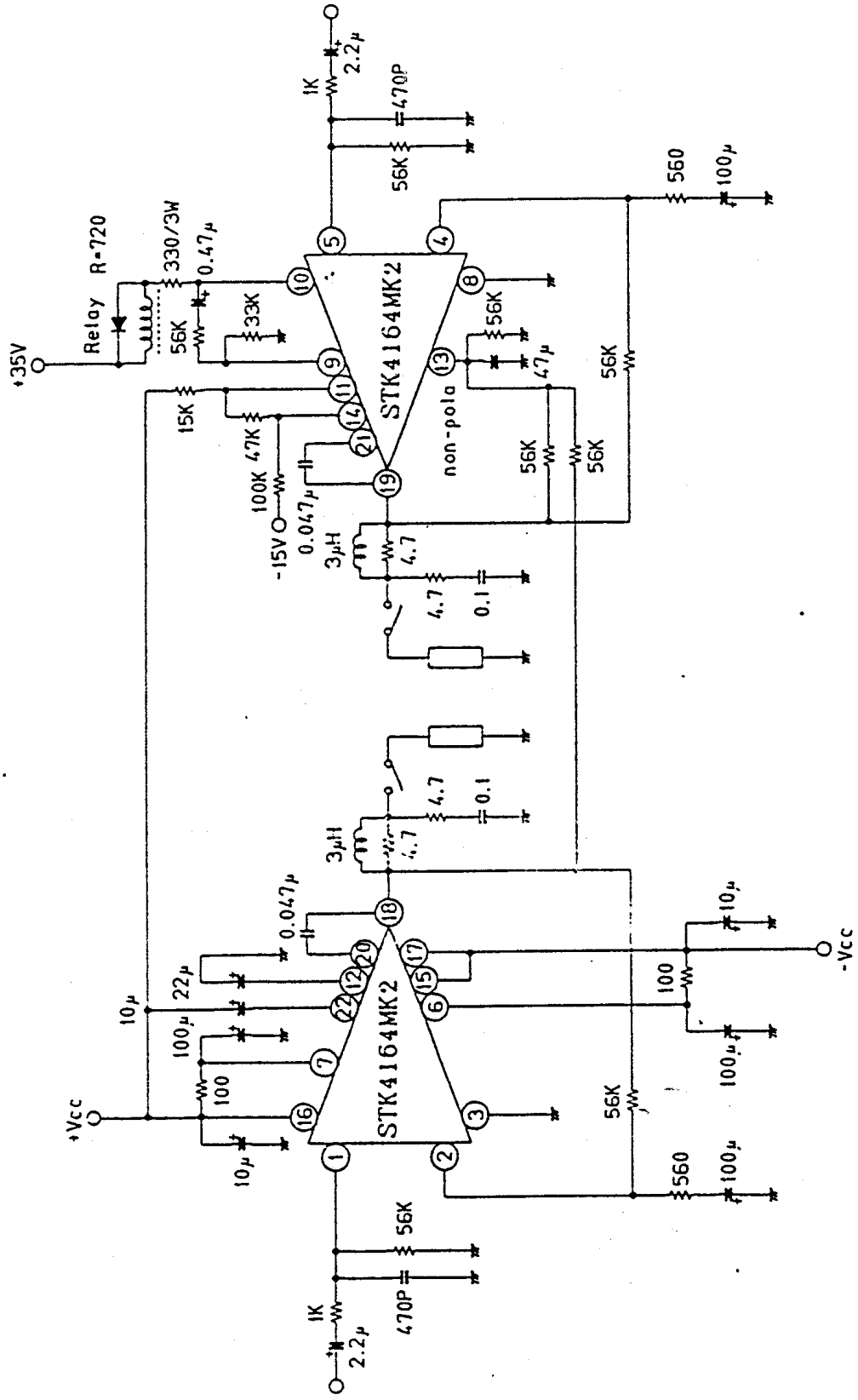
- For power supply at the time of test, use a constant-voltage power supply unless otherwise specified.
- For measurement of the available time for load shorted and output noise voltage, use the specified transformer power supply shown below.
- The output noise voltage is represented by the peak value 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 RP-25)

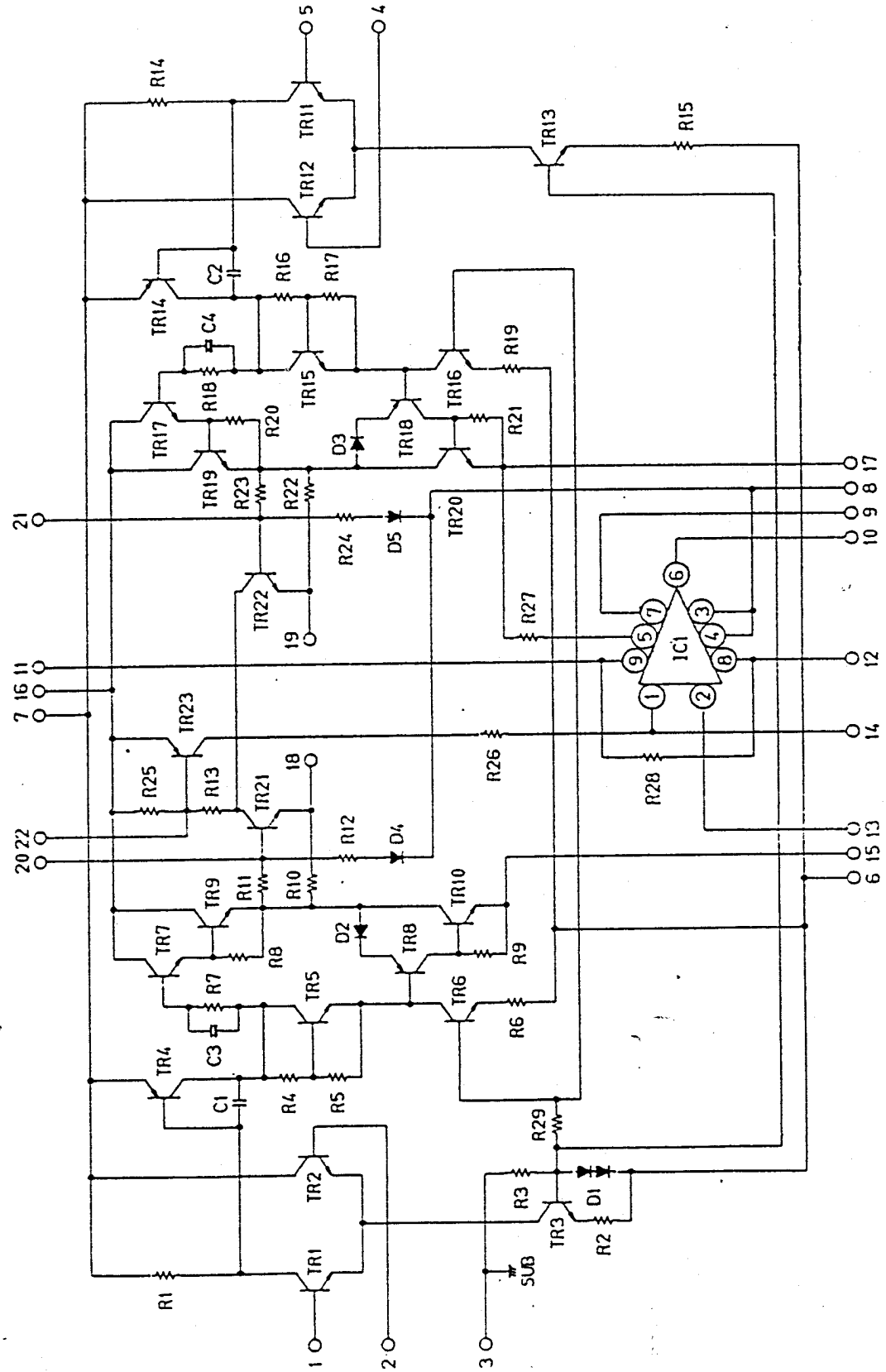


※Maximum Ratings for Protection Detection at Tc=25°C			unit	Remarks
Relay Driver Voltage	V_R	60	V	Pin 10 supply voltage
Relay Driver Current	I6	130	mA	Pin 10 current
IC1 Allowable Power Dissipation	Pd	500	mW	
Pin 14 Current	I1	±1.0	mA	
Pin 13 Current	I2	±1.0	mA	
Pin 9 Current	I7	+1.0	mA	
Pin 11 Current	I9	+5.0	mA	

Test Circuit (STK4164II)



Internal Equivalent Circuit (STK4164II)



Case Outline (unit : mm)