

REV	REVISIONS DESCRIPTION	DATE	APPROVED
A	PRODUCTION RELEASE PER ECO NO. 01085	4/18/89	S. OGAKI

50Hz 0.4A

POWER SUPPLY 27W 220V SWEDEN

PART NO.	APPROVED VENDOR	VENDOR PART NO.
C103594-001	MITSUMI	SR98S

Output: DC 5V 3A
DC 12V 0.2A

P.N° CA070086-002

		DRAWN BY	DATE	 ATARI CORPORATION	
		<i>H. Harba</i>	<i>4-14-89</i>		
		CHECKED	DATE	TITLE POWER SUPPLY 27W 220V SWEDEN	
		<i>K. Kitagawa</i>	<i>4/18/89</i>		
		ENGINEER	DATE	SIZE A	
		<i>O. Shingawa</i>	<i>4-17-89</i>		
		APPROVED	DATE	DRAWING NO.	REV
CA200255-xxx	1040STF			A	C103594-xxx A
NEXT ASSY	USED ON ORIGINAL MODEL	APPROVED	DATE	SCALE <i>NONE</i>	
APPLICATION		<i>S. OGAKI</i>	<i>4/18/89</i>	SHEET 1 OF 8	



8910

FILE No.

SPECIFICATION

SR 98

APPROVED

CHECKED

DRAWN

ISSUED

MAY. 6. 1987

1) ELECTRICAL CHARACTERISTICS

1-1 INPUT CONDITION

1-1-1 Input Voltage	AC220/240 V
1-1-2 Input Voltage Range	$\pm 10\%$
1-1-3 Frequency	50/60 Hz
1-1-4 Rated Current ($\times 1$)	2 A max
1-1-5 Inrush Current	35 A max

1-2 OUTPUT CHARACTERISTICS

1-2-1 Output Voltage	A--	DC+5.1 V
	B--	DC+12 V
1-2-2 Output Current	A--	1.5 ~ 3.0 A
	B--	0 ~ 0.9 A
1-2-3 Output Effect ($\times 2$)	A--	± 0.255 V
	B--	± 1.2 V
1-2-4 Ripple and Noise ($\times 1$)	A--	100 mV P-P
	B--	150 mV P-P
1-2-5 Over Curr. Protection		Short Protection
1-2-6 Start-up Time ($\times 1$)	A--	150 msec max
	B--	150 msec max
1-2-7 Hold-up Time ($\times 1$)	A--	10 msec min
	B--	10 msec min
1-2-8 Efficiency ($\times 1$)		55% min

1-3 Special Specifications

1-3-1 Withstand Voltage ($\times 3$)	AC1.5KV 1 min (cutoff current 10mA)
1-3-2 Insulation Resistance ($\times 3$)	10M Ω min DC500V

1-4 Radiation noise Meet to VDE 0871

REVISION

21.JUL.'87

CIII addition

CODE IDENT. No.

R-68

FILE No.

0168



1) ELECTRICAL CHARACTERISTICS

1-1 INPUT CONDITION

1-1-1 Input Voltage	AC220 V
1-1-2 Input Voltage Range	± 10 %
1-1-3 Frequency	50 Hz
1-1-4 Rated Current (*1)	2A max.
1-1-5 Inrush Current	35A max.

1-2 OUTPUT CHARACTERISTICS

1-2-1 Output Voltage	A	DC+5.1V
	B	DC+12V
1-2-2 Output Current	A	1.5 to 3.0 A
	B	0 to 0.9 A
1-2-3 Output Effect (*2)	A	± 0.255 V
	B	± 1.2 V
1-2-4 Ripple and Noise (*1)	A	100mV P-P
	B	150mV P-P
1-2-5 Over Curr. Protection		Short Protection
1-2-6 Start-up Time (*1)	A	150m sec max.
	B	150m sec max.
1-2-7 Hold-up Time (*1)	A	10m sec min.
	B	10m sec min.
1-2-8 Efficiency (*1)		55% min.

1-3 SPECIAL SPECIFICATIONS

1-3-1 Withstand Voltage (*3)	AC1.25KV 1min. (Cutoff current 10mA)
1-3-2 Insulation Resistance (*3)	10MΩ min. DC500V

1-4 RADIATION NOISE

Meet to VDE 0871

1-5 SAFETY STANDARD

LIMITED APPROVED BY SEMKO



ATARI CORPORATION

SIZE A	DRAWING NO. C103594-xxx	REV A
SCALE NONE	SHEET 2	OF 8

THIRD ANGLE SYSTEM, DIMENSION mm

2) MECHANICAL CHARACTERISTICS

2-1 VIBRATION-PROOF CHARACTERISTIC

The specifications and electrical characteristics of the product can be maintained after subjected to the vibration with a frequency variation range of 10Hz to 55Hz, an amplitude of 1mm, and a cycle time of 1 minute for 2 hours in each of X,Y, and Z directions.

2-2 DROP TEST

When packed for shipment, the product must drops on the concrete floor on each flat faces of it from 80cm hight, and this should work normally.

3) ENVIRONMENTAL

3-1 OPERATING TEMPERATURE

0 to +50°C.
(full load)

3-2 STORAGE TEMPERATURE

-20 to +75°C.

3-3 HUMIDITY

After kept in box whose temperature is $40 \pm 2^\circ\text{C}$ and relative humidity 90 to 95 % for 48 hours, this kept a normal condition for 12 hours, and this should work normally.

- (*1) Input Voltage AC 220V. At Rated Conditions
- (*2) Line Regulation, Load Regulation, Crose Regulation
- (*3) Primary - Secondary, Primary - Earth



ATARI CORPORATION

SIZE DRAWING NO.

A

C103594-xxx

REV

A

SCALE NONE

SHEET 3 OF 8

THIRD ANGLE SYSTEM DIMENSION mm

PARTS LIST

LOCATION	PART NEME	DESCRIPTION	QTY
IC201 or or △ PC101	IC PHOTO COUPLERS	HA17431P L5431 TL431CLP PC101	1 1
Q101	TRANSISTOR	2SC2979	1
Q102 or △ D101	TRANSISTOR DIODE	2SC2655 2SC2060 RB155	1 1
D102 or D103	DIODE	FR106	1
or D104	DIODE	ERB44-08	1
or D105	DIODE	FR103	1
D201	DIODE	ERB44-02	1
or D202	DIODE	1S2076	1
or △ T101	DIODE	1S2473	1
TRANS FORMERS		1S2076	1
		1S2473	1
△ L101	LINE FILTER	FR303	1
		30DF2	1
L201	CHOK E COIL	HRW34-01	1
L202	CHOK E COIL	ESAC82-004	1
△ C101	CAPACITOR	EI33 SWITCHING TRANSFORMER	1
or △ C102	CAPACITOR	UF2327S-403YOR3	1
or △ C103	CAPACITOR	10uH	2
or △ C207	CAPACITOR	0.47uF/250V(CFX) METALLIZED	1
or C105	CAPACITOR	0.47uF/250V(VE) METALLIZED	1
		0.0022uF/400V(KC) CERAMIC	1
		0.0022uF/400V(CS) CERAMIC	1
		0.0022uF/400V(KC) CERAMIC	1
		0.0022uF/400V(CS) CERAMIC	1
		0.0022uF/400V(KC) CERAMIC	1
		0.0022uF/400V(CS) CERAMIC	1
		0.01uF/630V METALLIZED	1
		0.00022uF/2KV(R) CERAMIC	1
		0.00022uF/2KV(CK) CERAMIC	1
		0.1uF/50V POLYESTER	1
		0.1uF/50V(AMZ) POLYESTER	1
		47uF/400V(NM)	1
△ C111 or	CAPACITOR	0.001uF/400V(KC) 0.001uF/400V(CS)	1



ATARI CORPORATION

SIZE

A

DRAWING NO.

C103594-xxx

REV

A

SCALE

NONE

SHEET

4

OF

8

THIRD ANGLE SYSTEM, DIMENSION : mm

PARTS LIST

LOCATION	PART NEME	DESCRIPTION		QTY
C108	CAPACITOR	0.1uF/50V	POLYESTER	1
or		0.1uF/50V (AMZ)	POLYESTER	
C109	CAPACITOR	0.068uF/50V	POLYESTER	1
or		0.068uF/50V (AMZ)	POLYESTER	
C110	CAPACITOR	0.022uF/50V	POLYESTER	1
or		0.022uF/50V (AMZ)	POLYESTER	
C201	CAPACITOR	2200uF/10V	ALUM ELECT	2
C203	CAPACITOR	2200uF/10V	ALUM ELECT	
C202	CAPACITOR	2200uF/16V	ALUM ELECT	1
C204	CAPACITOR	1000uF/16V	ALUM ELECT	1
C205	CAPACITOR	1000uF/10V	ALUM ELECT	1
C206	CAPACITOR	1uF/50V	ALUM ELECT	1
R101	RESISTOR	8.2Ω /3W	WIRE WOUND CEMENT	1
R103	RESISTOR	100KΩ /2W	METAL OXIDE FILM	1
R104	RESISTOR	1KΩ /2W	METAL OXIDE FILM	2
R105	RESISTOR	1KΩ /2W	METAL OXIDE FILM	
R205	RESISTOR	100Ω /3W	METAL OXIDE FILM	1
R106	RESISTOR	3.3Ω /1W	METAL OXIDE FILM	1
R109	RESISTOR	75Ω /2W	METAL OXIDE FILM	1
R102	RESISTOR	390KΩ / ½ W	CARBON	1
R204	RESISTOR	100Ω / ½ W	CARBON	1
R107	RESISTOR	2KΩ / ¼ W	CARBON	1
R108	RESISTOR	470Ω / ¼ W	CARBON	2
R111	RESISTOR	470Ω / ¼ W	CARBON	
R110	RESISTOR	47Ω / ¼ W	CARBON	1
R114	RESISTOR	22Ω / ¼ W	CARBON	1
R112	RESISTOR	10Ω / ¼ W	CARBON	2
R113	RESISTOR	10Ω / ¼ W	CARBON	



ATARI CORPORATION

SIZE

A

DRAWING NO.

C103594-xxx

REV

A

SCALE

NONE

SHEET

5

OF

8

THIRD ANGLE SYSTEM DIMENSION mm

PARTS LIST

LOCATION	PART NAME	DESCRIPTION	QTY
R201	RESISTOR	2.7K Ω / $\frac{1}{4}$ W CARBON	1
R202	RESISTOR	2.4K Ω / $\frac{1}{4}$ W CARBON	1
R203	RESISTOR	24 Ω / $\frac{1}{4}$ W CARBON	1
VR201	RESISTOR	1K Ω VARIABLE	1
Δ	HOLDER-FUSE		2
	FUSE	250V/T1A	1
	INSULATION PLATE		1
	CHASSIS		1
D203 or	DIODE	1N4746	1
	DIODE	RD18F	
Δ	HEAT SINK	AL, t=2m/m	2
	SWITCH	T-824 COLOR : BLACK	1
	AC INLET	AC-P01	1
	SARCON-TUBE		1
Δ	SUPPORT-TR		2
	CONNECTOR-ASSY	171822-6 AWG22 UL1007	1
	P.C. BOARD		1
	TUBE	ϕ 24	1
Δ	TUBE	ϕ 5	2
	SCREW	M3 X 6 WIAT STAR WASHER	2
	SCREW	M3 X 6 FLAT HEAD	2
	SCREW	M3 X 6 DOUBLE SEMS	4
Δ	SCREW	M4 X 6 PAN SEMS	1
	SCREW	M3 X 6 PAN SEMS	2
	WASHER	STAR WASHER	1
	WIRE-JUMP		5
Δ	WIRE	AWG 22 UL1617	1
	WIRE	AWG 22 UL1617	1
	WIRE-ASSY	AWG 22 UL1617	1
	WIRE-ASSY	AWG 22 UL1617	1
Δ	WIRE-ASSY(EARTH)	1.25-M4 AWG18 UL1015 CSA TEW	1
	BAND		3
	LABEL-RATING		1
	LABEL-CAUTION		1
Δ	LABEL-CAPACITOR		1



ATARI CORPORATION

SIZE
A

DRAWING NO.

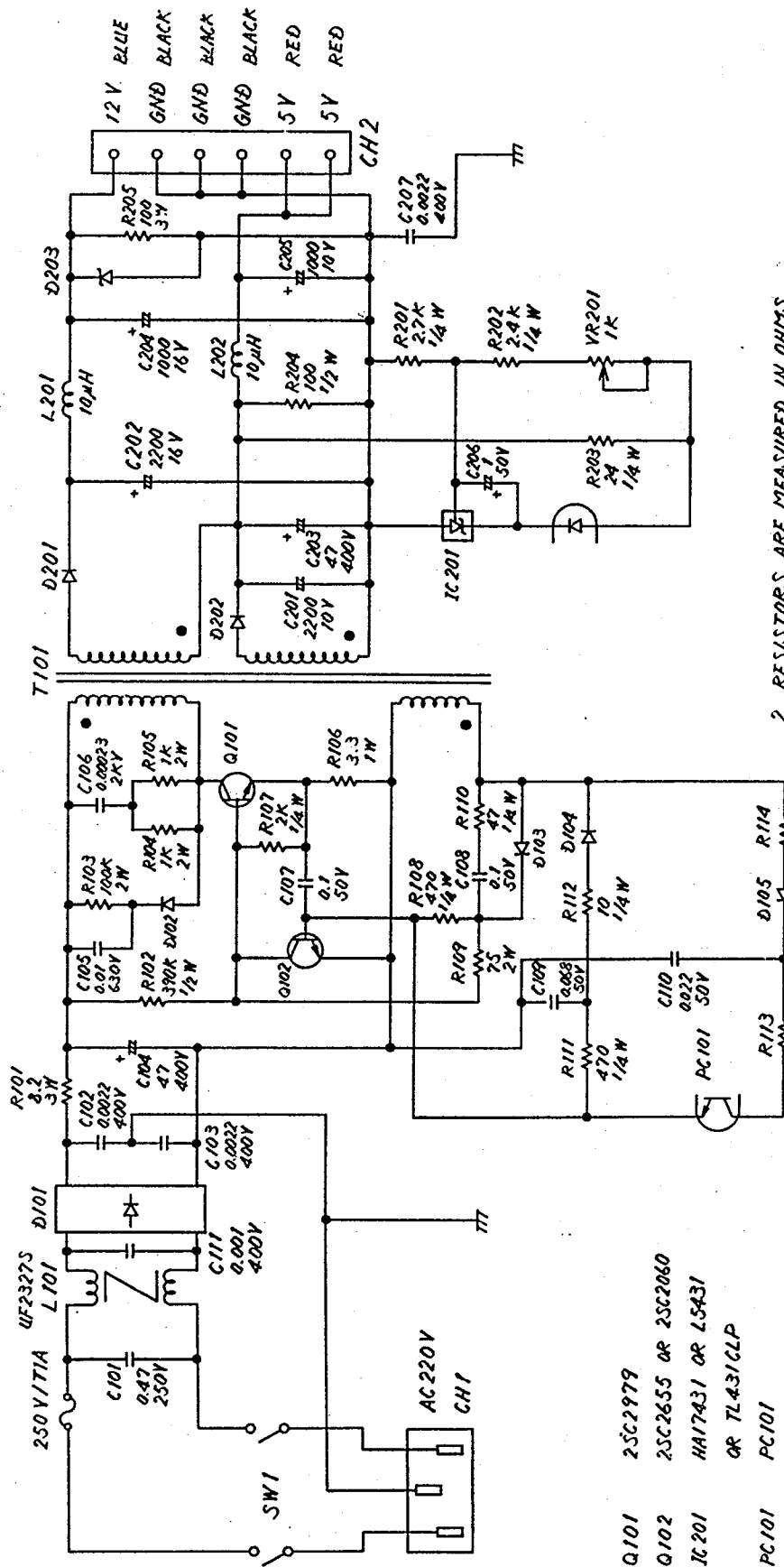
C 1 0 3 5 9 4 - x x x

REV
A

SCALE NONE

SHEET 6 OF 8

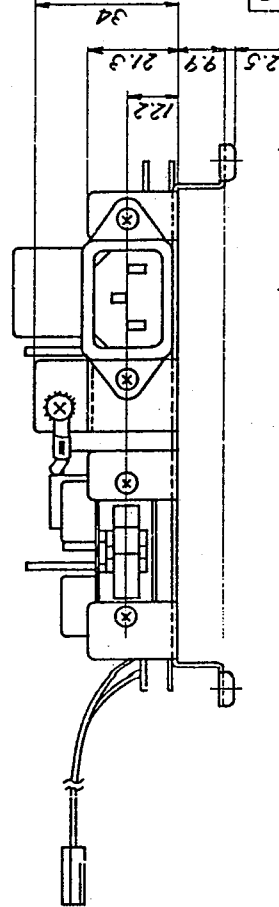
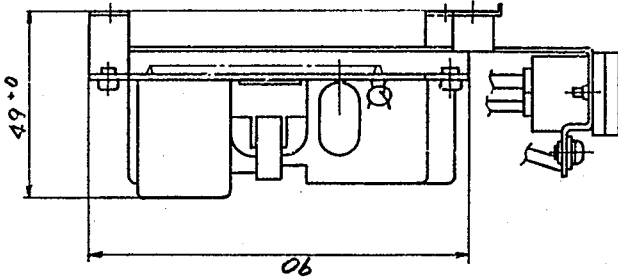
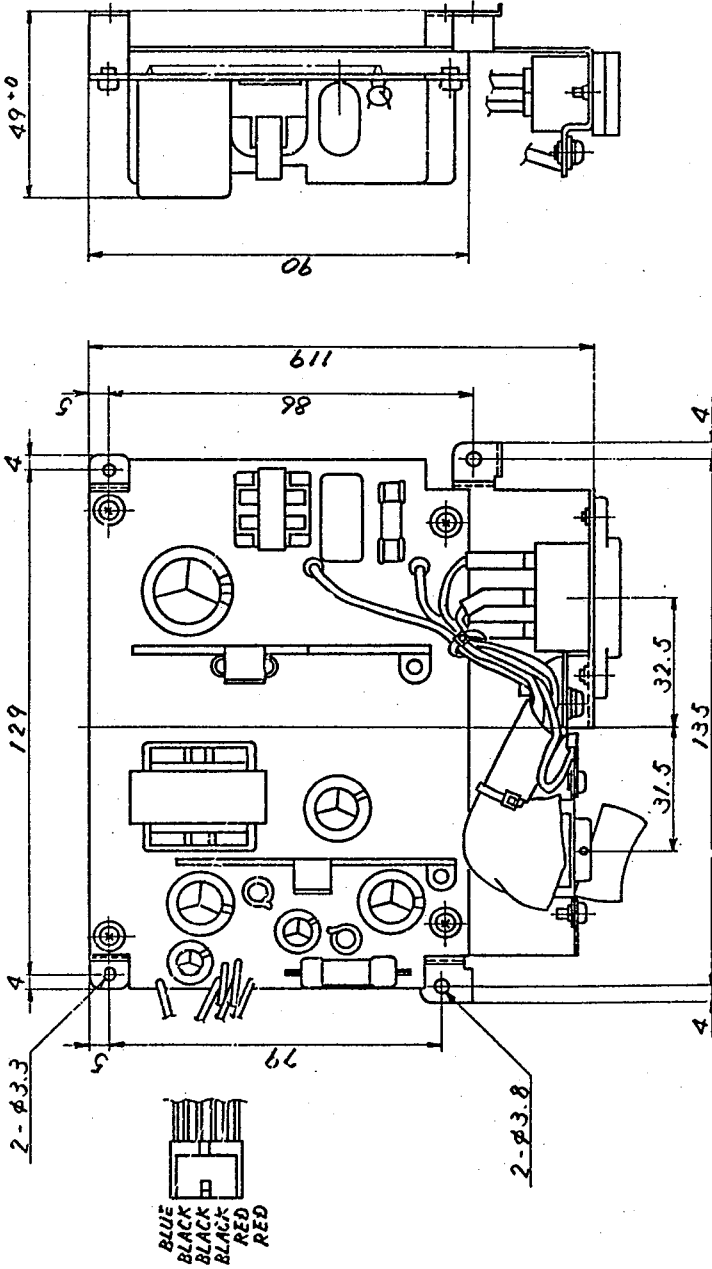
THIRD ANGLE SYSTEM, DIMENSION : mm



- Q101 2SC2979
 Q102 2SC2655 OR 2SC2060
 IC201 HA17431 OR L5431
 OR TL431/CLP
 PC101 PC101
 D101 RB155
 D102 FR106 OR ERB44-08
 D103 FR103 OR ERB44-02
 D104, D105 1S2076 OR 1S2473
 D201 FR303 OR 30DF2
 D202 HRW34-01 OR ESAC82-04
 D203 1N4746 OR RD18F

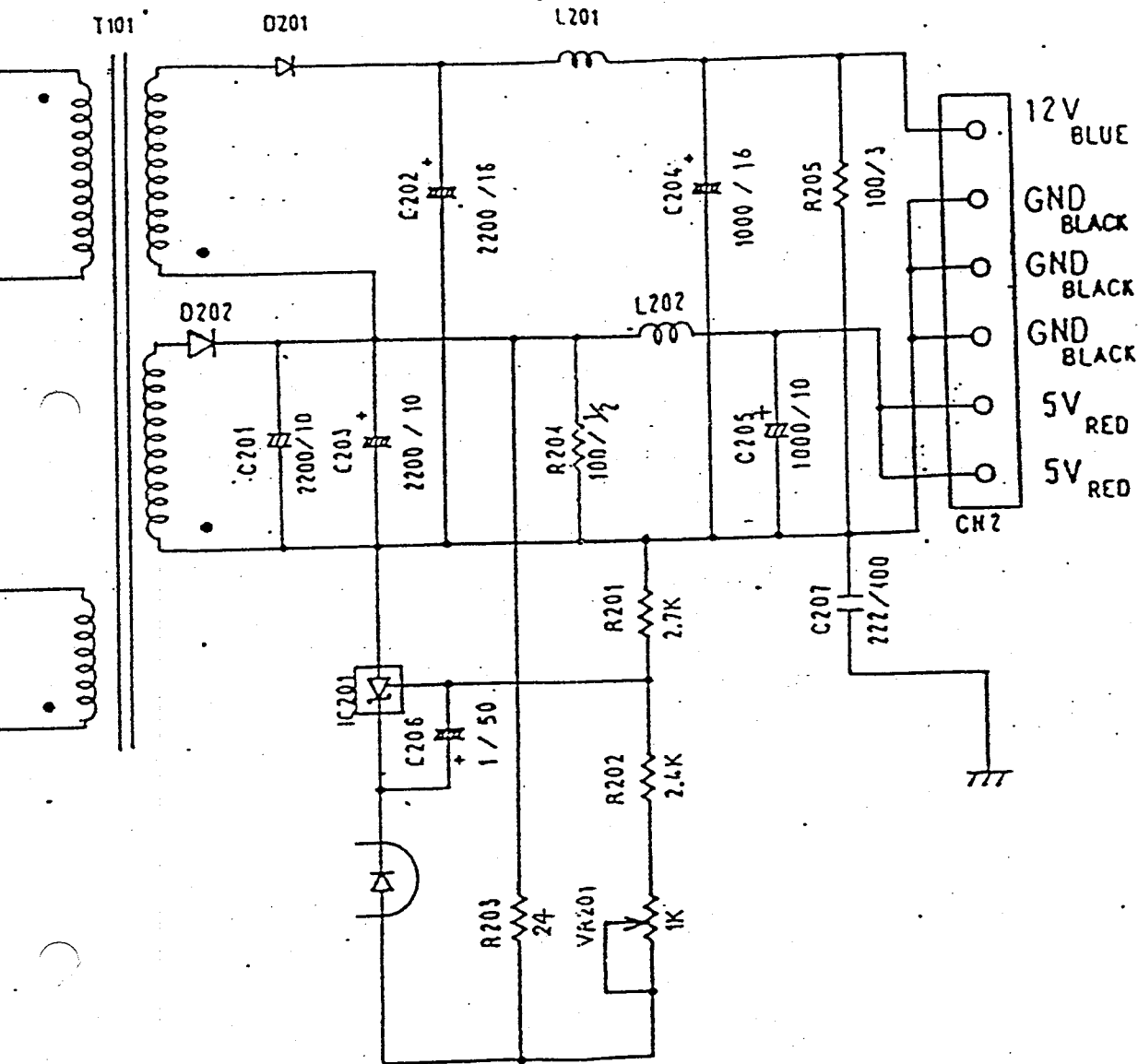
2. RESISTORS ARE MEASURED IN OHMS.
 1. CAPACITORS ARE MEASURED IN MICROFARADS.
 NOTES - UNLESS OTHERWISE SPECIFIED:

UNLESS OTHERWISE SPECIFIED TOLERANCES ON LINEAR DIMENSIONS UNDER 30 ± 0.1 30 THRU 500 ± 0.2 OVER 500 ± 0.4		DRAWN BY 4-18-89 Z. Kuramochi CHECKED DATE	
MATERIAL		ENGINEER F. K. Kagan 4/18/89 DATE	
FINISH		APPROVED O. Shingawa 4/18/89 DATE	
NEXT ASSY		USED ON ORIGINAL MODEL	
APPLICATION		ATARI CORPORATION	
TITLE POWER SUPPLY 27W 220V SWEDEN		REV A	
SIZE DRAWING NO. B C103594 - xxx		SHEET 7 OF 8	
SCALE NONE			

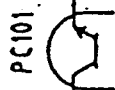


ATARI CORPORATION		POWER SUPPLY 27 W 220 V SWEDEN B C103594 - x x x A SCALE NONE SHEET 8 OF 8
DRAWN BY E. Kuranochi CHECKED K. Kitegawa ENGINEER O. Shingawa DATE 4-13-89 DATE 4-13-89 DATE 4-13-89 DATE 4-13-89	UNLESS OTHERWISE SPECIFIED: ON LINES DIMENSIONS UNDER 30 ± 0.1 30 THRU 300 ± 0.2 OVER 300 ± 0.4 MATERIAL FINISH	USED ON ORIGINAL MODEL APPLICATION
NOTES—UNLESS OTHERWISE SPECIFIED:		

REVISION	DATE	BY	DESCRIPTION
1	21 JUL 67	W. J. COFFIN	



THIRD ANGLE PROJECTION	SCALE	TOLERANCE	ASSEMBLY DWG No.	SR 98 SCHEMATIC DIAGRAM	CODE IDENT No. R-68	FILE No. 0168	
	DRAWN <i>[Signature]</i>	CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>				



Q102 2SC 2655
or 2SC 2060

IC201 HA17431
or L5431
or TL431CLP

PC101 PC101

D101 RB155

D102 FR106

or ERB44-08

D103 :FR103

or ERB44-02

D104, D105 1S2076

.or 152473

D201 FR303

or 300F2

0202 HRW34-01

or ESAC 82-04