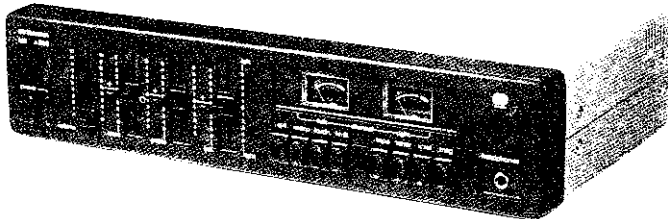




SERVICE MANUAL

12 Watt Solid State Stereo Hi-Fi Amplifier

MODEL A-300



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Kanzleistrasse 126 8004 Zürich
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Specifications are subject to change without notice.

ALIGNMENT INSTRUCTION

- Equipment required : (See Fig. 1 and 2)
- Signal Generator (SG) : Output 1 kHz
with attenuator approx. 10mV ± 500mV
R 10 kohm distortion 0.1%
- Oscilloscope (OSC) : normal
- Ammeter (AM) : DC 0-100mA
- Volt meter (VM) : DC 0-50V
- Dummy load (RL) : 2 ohm 3% 20W
- For further checks:
- Distortion Meter (DM)
- Audio Voltmeter (AVM)

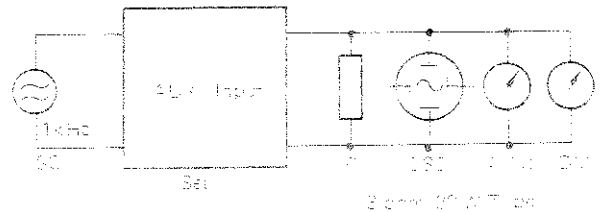


Fig. 1

| STEP | OUTPUT | ADJUST | ADJUST FOR |
|------|---------|--------------------|---|
| 1 | 0 | VR301-L VR302-R | 0V ± 0.2V ± 1.2 VDC |
| 2 | 0 | VR303-L VR304-R | 10 ± 0.2 mA |
| 3 | 1-3 W | VR101-L VR102-R | Symmetrical sine wave as shown in Fig. 2 |
| 4 | 100-10% | VR101 VR102 | VU Meter 0dB |

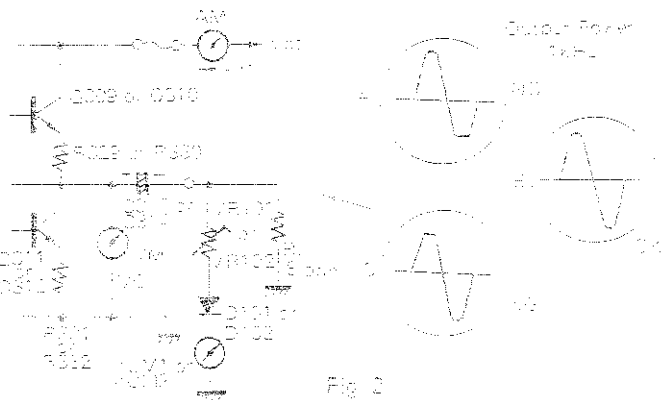
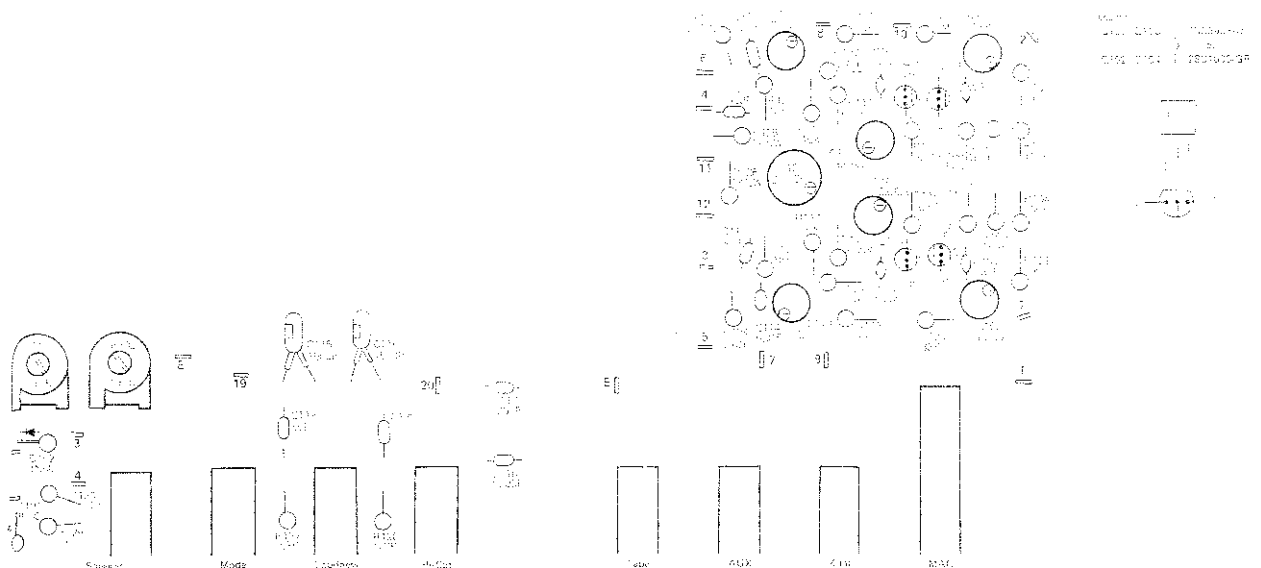


Fig. 2

Equalizer Amp P. C. Board(EQA-300)

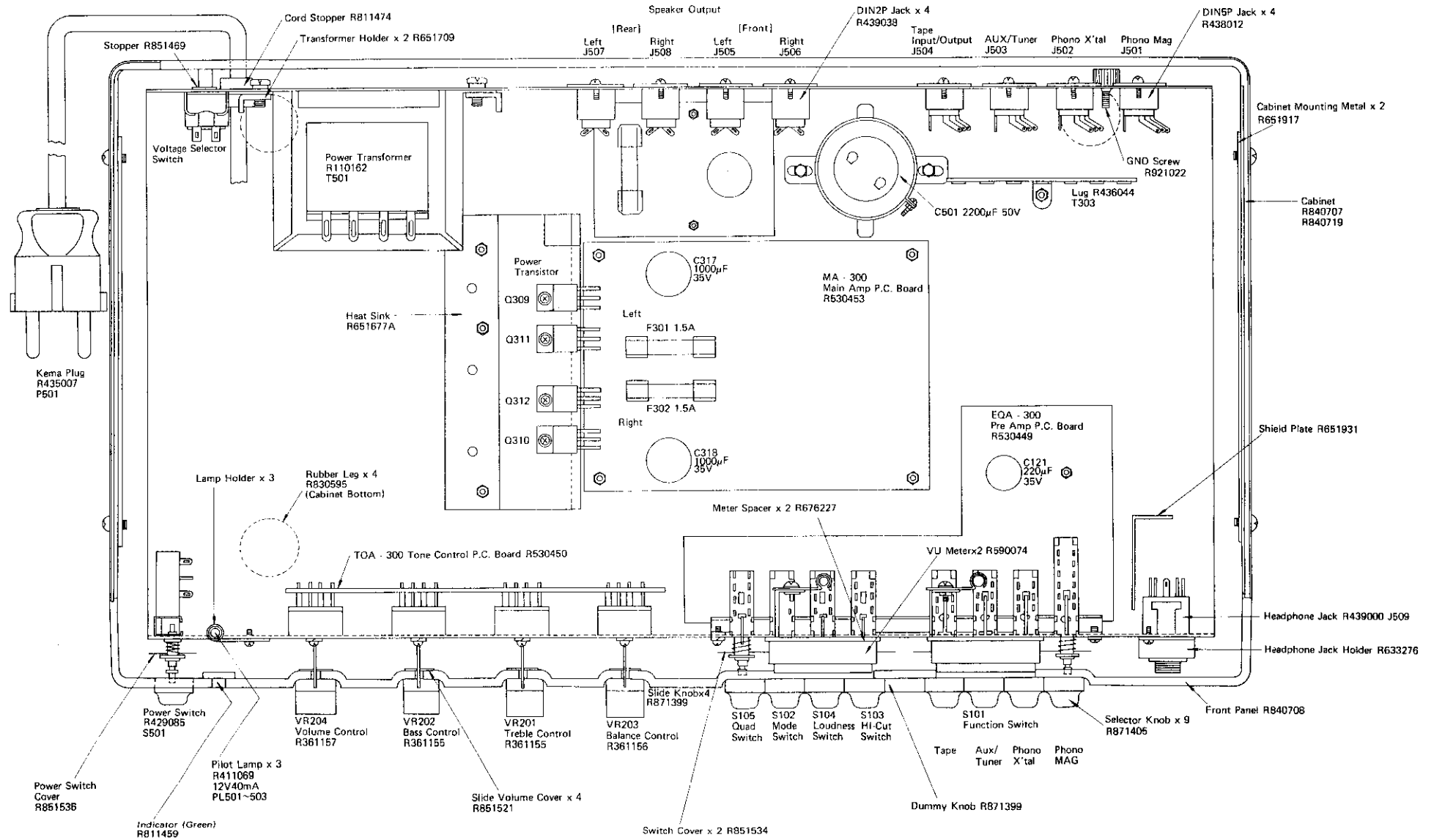


SPARE PARTS LIST

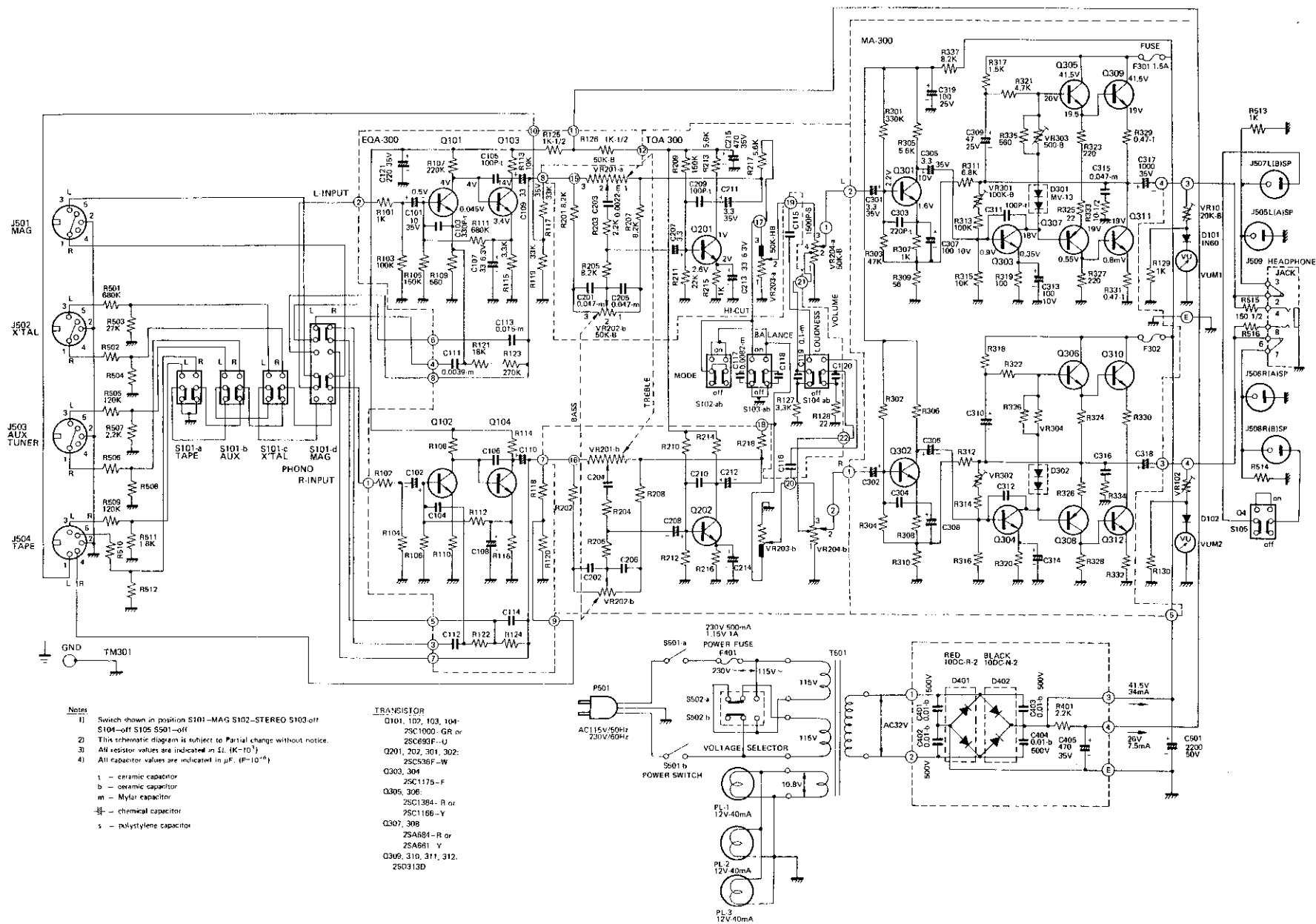
(Standard Parts Resistors, Capacitors are not listed here.)

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|--|----------|---|---|----------|--|
| A. Cabinet | | | | | |
| | R840707 | Upper Cabinet | Q101, Q102, Q103, Q104 | | Transistor 2SC693-F-U or 2SC1000-GR |
| | R840719 | Lower Cabinet | D101, D102 | | Diode 1N60 |
| | R811443 | Upper Cabinet Sticking Piece | VR101 VR102 | R382034 | Semi-Fixed Resistor B B 20kΩ |
| | R830595 | Rubber Leg | | | |
| | R651917 | Cabinet Holder | D. Tone Control Amplifier P. C. Board (TOA-300) See Fig. 4 | | |
| | R871399 | Slide Volume Knob | | R530450 | Tone Control Amplifier P. C. Board (without component) |
| | R871405 | Push Switch Knob | Q201, Q202 | | Transistor 2SC536F or 2SC732-GR |
| | R871388 | Dummy Knob | VR201, VR202 | R361155 | B-50kΩ (Tone Control) |
| | R811459 | Power Indicator Pilot (Green) | VR203 | R361156 | HB-50kΩ (Balance Control) |
| | R840708 | Front Panel | VR204 | R361157 | B-50kΩ With Center Tap (Volume Control) |
| | H850286 | P. S. Paper | | | |
| | R851521 | Slide Volume Mask | E. Main Amplifier P. C. Board (MA-300) See Fig. 5 | | |
| | R851534 | Switch Cover | | R530453 | Main Amplifier P. C. Board (without component) |
| | R851535 | Switch Cover (AC Power Switch) | Q301, Q302 | | Transistor 2SC 536-F or 2SC732-GR |
| | R890869 | Name Plate | Q303, Q304 | | Transistor 2SC1175-F or 2SC 734-Y |
| B. Chassis Parts | | | Q305 Q306 | | Transistor 2SC1384-R or 2SC1384-Q |
| | R610403 | Chassis | Q307 Q308 | | Transistor 2SA684-R or 2SA684-Q |
| S501 | R429085 | Power Switch (Push Type) | Q309, Q310, Q311, Q312 | | Transistor 2SD313-D With Accessories |
| PL501 | R411069 | Pilot Lamp 12V 40mA (Power) | D301, D302 | | Silicon Varistor Diode MV-13 |
| | | Pilot Lamp Holder | VR303, VR304, | R382021 | Semi-Fixed Resistor B-500Ω |
| ME1, ME2 | R590074 | Output Meter 650Ω 250μA | VR301 | R382023 | Semi-Fixed Resistor B-100kΩ |
| | R676227 | Meter Spacer | VR302 | H430028 | P. C. Board Fuse Holder |
| PL502 | R411070 | Pilot Lamp 12V 40mA (Meter) | F301, F302 | R412006 | Fuse 1.5A |
| PL503 | R411071 | Pilot Lamp 12V 40mA (Meter) | F. Power Supply P. C. Board (PS-300) See Fig. 6 | | |
| | R676202A | Spacer (height 6.5mm) | | R530354 | Power Supply P. C. Board (without component) |
| J509 | R633276 | Headphone Jack Holder | F401 | R430028 | P. C. Board Fuse Holder |
| | R439000 | Headphone Jack | F401 | R412026 | Fuse 1A for AC Line Voltage 115V |
| | A65412 | Lead Clamper | D201 | R412027 | Fuse 0.5A AC Line Voltage 230V |
| | H810231 | Spacer (height 12mm) | D202 | | Silicon Rectifier Diode Stack Type 10DC-R-2 (Red) |
| | R851402A | Fuse Fiber | | | Silicon Rectifier Diode Stack Type 10DC-N-2 (Black) |
| | R651667A | Heat Sink | | | |
| | R436044 | Lug T-303 (6P) | | | |
| | R651931 | Shield Plate | | | |
| | R440095 | AC Line Cord | | | |
| P501 | R435007 | AC Line Cord Plug (KEMA) | | | |
| | R811474 | Cord Stopper SN-4 | | | |
| S502 | H425020 | Slide Switch | | | |
| | R851469 | Slide Switch Stopper B | | | |
| T501 | R110162 | Power Transformer | | | |
| | R651709 | Transformer Holder | | | |
| J505, J506 J507, J508 | R439038 | DIN 2P Jack | | | |
| J501, J502 J503, J504 | R438012 | DIN 5P Jack | | | |
| TM501 | R921022 | GND Screw | | | |
| C. Equalizer Amplifier P. C. Board Parts (EQA-300) See Fig. 3 | | | | | |
| | R530449 | Equalizer Amplifier P. C. Board (without component) | | | |
| | R436031 | P. C. Board Terminal | | | |
| S101 ~ S105 | R429086 | Push Switch | | | |

COMPONENT DIAGRAM(TOP VIEW)



SCHEMATIC DIAGRAM



- Notes**
- 1) Switch shown in position S101-MAG S102-STEREO S103-off S104-off S105 S501-off
 - 2) This schematic diagram is subject to Partial change without notice.
 - 3) All resistor values are indicated in Ω ($K=10^3$)
 - 4) All capacitor values are indicated in μF ($P=10^{-8}$)

TRANSISTOR

| | |
|------------------------------|-------------------------|
| Q101, 102, 103, 104 | 2SC1000-GR or 2SC693F-U |
| Q201, 202, 301, 302 | 2SC536F-W |
| Q303, 304 | 2SC1175-F |
| Q305, 306 | 2SC1394-R or 2SC1166-Y |
| Q307, 308 | 2SA684-R or 2SA681-Y |
| Q309, 310, 311, 312, 250313D | |

- 1 - ceramic capacitor
- b - ceramic capacitor
- m - Mylar capacitor
- - chemical capacitor
- s - polystyrene capacitor

