

**LA4460,4461**

monolithic linear IC

CIRCUIT DRAWING  
No.2081AF POWER AMP. FOR CAR STEREO,  
CAR RADIO

3024A

**Features**

- High gain of 51dB typ. and high output of 12W typ.
- Possible to form circuit configuration without output capacitor and bootstrap capacitor, thereby enabling reduction in cost and space concerning external parts.
- Minimum number of external parts required: 8 pcs. recommended, 6 pcs. min.
- Small pop noise at the time of power supply ON/OFF.
- Soft tone at the time of output saturation.
- Low distortion over a wide range.
- Small residual noise:  $R_g=0$ .
- Easy to mount on board due to use of compact single end package.
- LA4461 is a version of LA4460 with mirror image pin assignment, thereby making it easy to draw stereo printed circuit pattern.
- Two ground pins of Preamp. GND and Power amp. GND are provided, thereby making it easy to draw printed circuit pattern and causing stabilization of distortion due to signal source impedance.
- Voltage gain fixed at 51dB. Variable voltage gain available with external resistor added.
- Inverted insertion causes no destruction.
- Built-in audio muting function (AC mute, DC mute).
- Built-in protectors.
  - a. Thermal protector.
  - b. Overvoltage, surge voltage protector.
  - c. Load short current limiting protector.
  - d. Output pins DC short protector (OUT-GND grounding protection and speaker protection).

**LA4500**

monolithic linear IC

CIRCUIT DRAWING  
No.20832-CHANNEL AF POWER AMPLIFIER FOR  
RADIO CASSETTE(12V)

3037A

**Features**

- Small idling current (20mA/2 channels) enabling prolonged battery life.
- Small dependence of idling current on  $V_{CC}$ .
- High power (5.3W typ. x 2).
- High ripple rejection (60dB at steady state).  
Since filters are arranged in 3 stages (including 1 stage inside IC) to attain satisfactory ripple rejection at transient state, ripple occurring at the time of motor start can be prevented from mixing in.
- Small pop noise at the time of power supply ON/OFF and good starting balance between both channels (0.6 sec.) due to built-in pop noise limiter.
- Pins provided for compensating high frequency response.
- Small residual noise (0.4mV).
- Wide supply voltage range (6 to 24V) easing design of transformer power supply.
- Built-in thermal shutdown circuit.
- Designed so that inverse insertion or short between adjacent pins causes no destruction.
- Channel-to-channel mirror image pin assignment and provision of Pre GND, Power GND pins enabling stable operation and easing artwork of printed circuit board.
- Minimum number of external parts required (9 pcs. min., 12 pcs. typ.).
- Audio muting capability (for automatic music selection, electronic tuner).