

HIGH SPEED BIPOLAR AMPLIFIER

BA Series BA4825 [2MHz Type] / BA4850 [50MHz Type]



BA4825 : DC to 2MHz, 100Vrms (300Vp-p), 0.5Arms

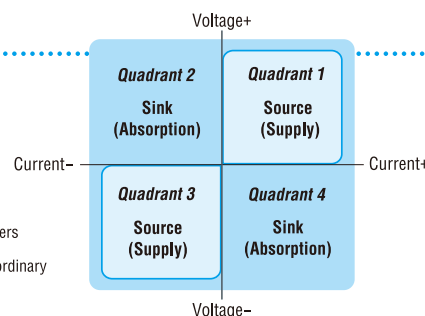


BA4850 : DC to 50MHz, ±20V, ±1A

The BA Series are power amplifiers that handle DC to 50MHz (max.) signals and output broadband, high speed, and high voltage (300Vp-p max) bipolar (both positive and negative polarities) outputs. While ordinary DC power supplies only supply one-way currents, the BA Series amplifiers supply (source) and absorb (sink) currents, and handle positive and negative voltages as well, because they operate across all four quadrants.

Concept of the BA Series Operation Area (4-quadrant output)

- Output range of BA Series amplifiers
- Output range of ordinary power supplies



● Available for capacitive and inductive loads ●

If a load containing a capacitor or coil is driven with alternating current, the current generally flows back from the load. In this case, an ordinary power supply or amplifier may not be able to drive the load. BA Series amplifiers also operate (i.e., output the current) with a capacitive or inductive load such as a piezoelectric element or solenoid. This is because it operates also with a sink, where the voltage and current directions are reverse.

● Broadband, high speed, and high-voltage ●

The BA4850 faithfully reproduces pulse signals with quick rise and complex waveform signals as well, because the frequency band is DC to 50MHz and the slew rate is 6,000V/μs. The BA4825 drives current from a large piezoelectric element or display device, because the band is DC to 2MHz and the maximum high-voltage output is 300Vp-p. Since both models can amplify direct current, waveforms containing an offset and those that are asymmetric in the positive and negative areas can be input for amplification.

● Low output impedance ●

The BA Series keeps a low output impedance throughout the overall range (0.5Ω+1.5μH or less typ. for BA4825). With the voltage drop (raised due to load connection) suppressed to the minimum, the power of the equipment is maximized.

● Multiple functions ●

- Range shifting function*1 for changing output range.
- DC bias addition function*1 for adding direct current (bias) to the output.
- DC offset adjustment function for setting DC offset in output to 0 (zero).
- Equipped with output voltage monitor terminal (BNC, monitor ratio 1/100)*1 and monitor meter (output voltage/current switching display)*1.
- Output on/off can be switched from the panel or externally controlled.
- Output polarity switching (INVT) for setting the device to either an in-phase or reversed-phase amplifier. Use of reversed-phase output enables BTL*2 connection, which doubles the output voltage and power, using two BA Series amplifiers.
- Two systems, A and B, for input. Switching and addition of the input by pressing a single key*1.
- Input impedance switchable between 50Ω and 10kΩ*1.
- The settings at power-on can be set using the dip switches on the rear panel.
- The power input is available for worldwide applications (100 to 230V AC).



*1 : BA4825 function *2 : Balanced Transformerless