

First BIFET op amp family. TI's new TL080 series.

High performance single, dual and quad op amps.

Here's a unique solution to your operational amplifier design needs ...Texas Instruments new TL080 op amp family.

The first BIFET op amp family ever. With two singles; two duals and a quad that can meet most of your op amp requirements:

Both singles have offset voltage null capability. The TL080 requires external frequency compensation. The TL081 has internal compensation.

The duals, TL082 and TL083, both offer internal frequency compensation. The TL083 also provides offset voltage null capability.

The quad, TL084, has internal frequency compensation. It's the industry's first four-in-one BIFET op amp.

High performance

Each device in the TL080 series uses BIFET technology combining well-matched, high-voltage JFET and bipolar transistors on a monolithic integrated circuit. For the outstanding DC performance of Super Beta and excellent AC characteristics:

0 Input bias current—0.4 nA max at 25°C; 10 nA max at 70°C.

0 Input offset voltage—15 mV max at 25°C; 20 mV max at 70°C.

0 Unity gain bandwidth—3 MHz typ.

0 Slew rate—12V/ μ s typ.

0 I_{cc} per op amp—2.8 mA max.

These same parameters apply for each member of the family; the entire series has identical AC and DC specs. For the greatest versatility and broadest user selectivity ever offered in operational amplifiers.

Additional advantages

If you check these specs, you'll find they're the best ever seen at these low prices. And the TL080 series' high performance is specified across the full temperature range.

TL080 Series BIFET Op Amp Prices

Prices for each part in 100-piece quantities. Plastic packages; commercial temperature range (0° to 70° C):

Device	Price	Price per Op Amp
TL080	\$1.04	\$1.04
TL081	0.52	0.52
TL082	0.91	0.455
TL083	1.17	0.585
TL084	1.30	0.325

Even greater performance is available when you order the "A" or "B" versions. For example, the TL081AC has the same 6.0 mV input offset voltage as the μ A741C.

The new TL080 series also features:

0 Function-for-function pin-outs with its most popular op amp counterparts.

0 The first high performance duals and quads ever available.

0 And prices competitive with many general purpose, non-BIFET devices.

So you can take advantage of their improved performance without the penalty of greatly increased costs. For example, the 100-piece price of the TL081CP is only 52¢.

Dual-in-line packages

The complete TL080 family is offered in dual-in-line packages for the extra bonus of lower testing and insertion costs. The TL080, 081 and 082 are available in 8-pin plastic DIPs and TO-99 metal cans; the TL083 and 084 in 14-pin plastic DIPs.

It makes sense to check out the greater savings and versatility you can realize with TI's new BIFET op amp family.

Brochure available

Just mail the coupon below for a free copy of TI's brand new 20-page "BIFET Op Amp" brochure. It's packed with data sheets, applications circuits, detailed comparative specifications and price information.

The complete TL080 series of BIFET op amps is available now from Texas Instruments and your local authorized TI distributor.



Texas Instruments TL080 Series BIFET Op Amps

Device	# of Op Amps	Internal Compensation	Offset Voltage Null	Pin-out Equivalents
TL080	1	No	Yes	μ A748; LM301A; LM308
TL081	1	Yes	Yes	μ A741; LF13741; CA3140; LF355
TL082	2	Yes	No	LM358; MC1458; RC4558
TL083	2	Yes	Yes	μ A747
TL084	4	Yes	No	LM324

Texas Instruments Incorporated
Inquiry Answering Service
P.O. Box 5012, M/S 308
Dallas, Texas 75222

Please send me TI's new BIFET Op Amp Family brochure and information on the following:

- ☐ All Linear Control Circuits ☐ TL181 Series Analog Switches
☐ Voltage Regulators ☐ TL600 Series Analog Switches
☐ Switching Regulators

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