

NE531 Series – High Slew Rate Operational Amplifier

GENERAL DESCRIPTION

The 531 is a fast slewing high performance operational amplifier which retains dc performance equal to the best general purpose types while providing far superior large signal ac performance. A unique input stage design allows the amplifier to have a large signal response nearly identical to its small signal response. The amplifier is compensated for truly negligible overshoot with a single capacitor. In applications where fast setting and superior large signal bandwidths are required, the amplifier out performs conventional designs which have much better small signal response. Also, because the small signal response is not extended, no special precautions need be taken with circuit board layout to achieve stability. The high gain, simple compensation and excellent stability of this amplifier allow its use in a wide variety of instrumentation applications.

FEATURES

- 35V/ μ sec slew rate at unity gain
- Pin for pin replacement for μ A709, μ A748 or LM101
- Compensated with a single capacitor
- Same low drift offset null circuitry as μ A741
- Small signal bandwidth 1MHz
- Large signal bandwidth 500KHz
- True op amp dc characteristics make the 531 the ideal answer to all slew rate limited operational amplifier applications.

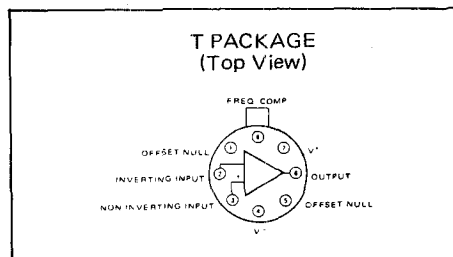
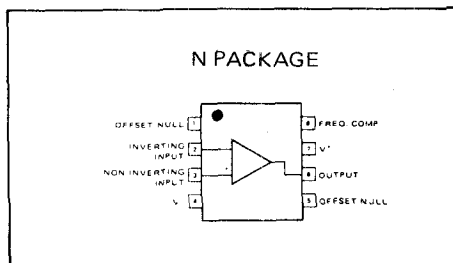
MAXIMUM RATINGS

PARAMETER	RATING	UNIT
Supply voltage	± 22	V
Internal power dissipation ¹	300	mW
Differential input voltage	± 15	V
Common mode input voltage ²	± 15	V
Voltage between offset null and V-	± 0.5	V
Operating temperature range		
NE531	0 to +70	°C
Storage temperature range	-65 to +150	°C
Lead temperature		
(soldering, 60 sec)	300	°C
Output short circuit duration ³	indefinite	

NOTES

1. Rating applies for case temperature to 125°C, derate linearly at 6.5mW/°C for ambient temperatures above +75°C.
2. For supply voltages less than ± 15 V, the absolute maximum input voltage is equal to the supply voltage.
3. Short circuit may be to ground or either supply. Rating applies to +125°C case temperature or to +75°C ambient temperature.

CONNECTION DIAGRAM



REFERENCE TABLE

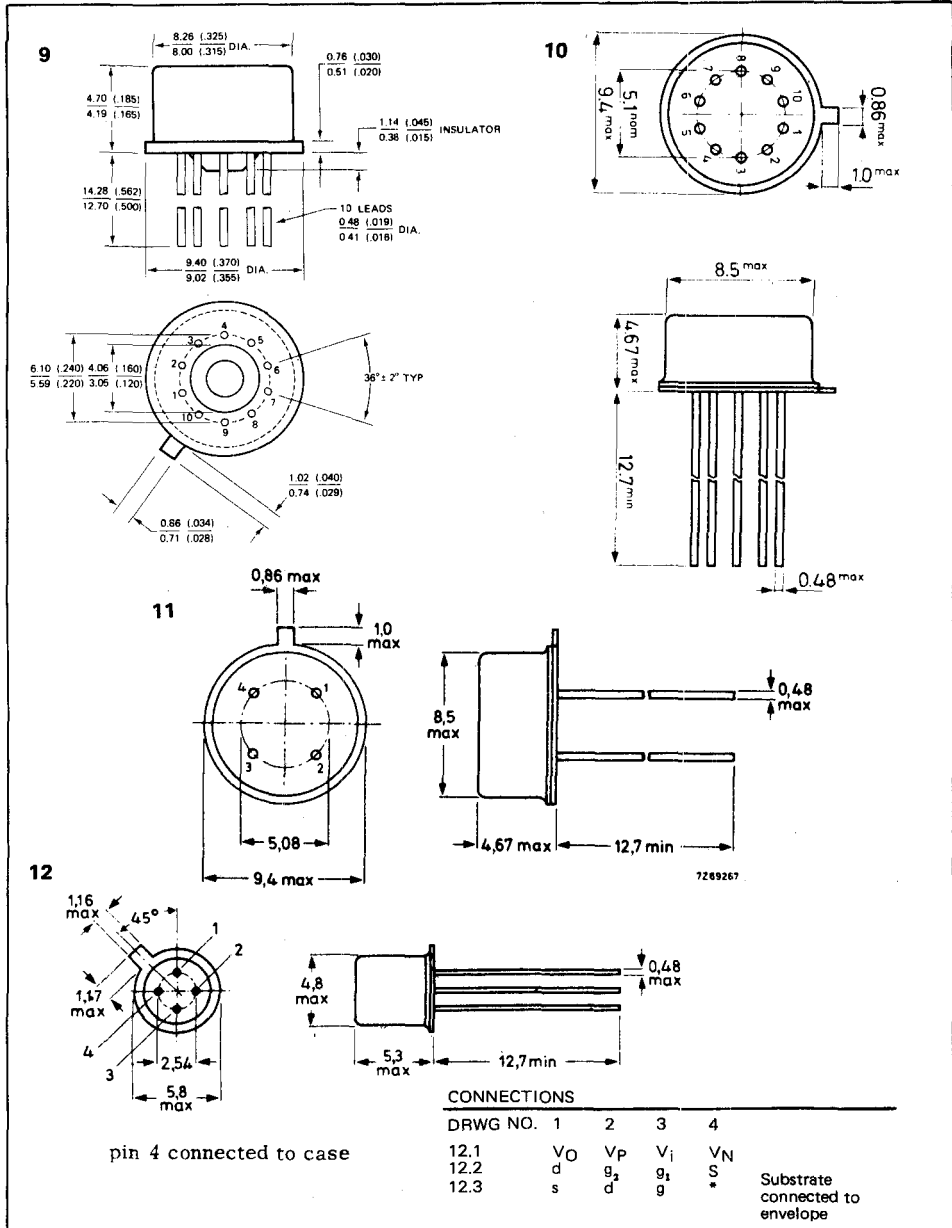
TYPE NO.	STOCK NO.	OUTLINE DRWG NO.
NE531T	55929C	7
NE531N	55930F	8

PLEASE QUOTE STOCK NO.
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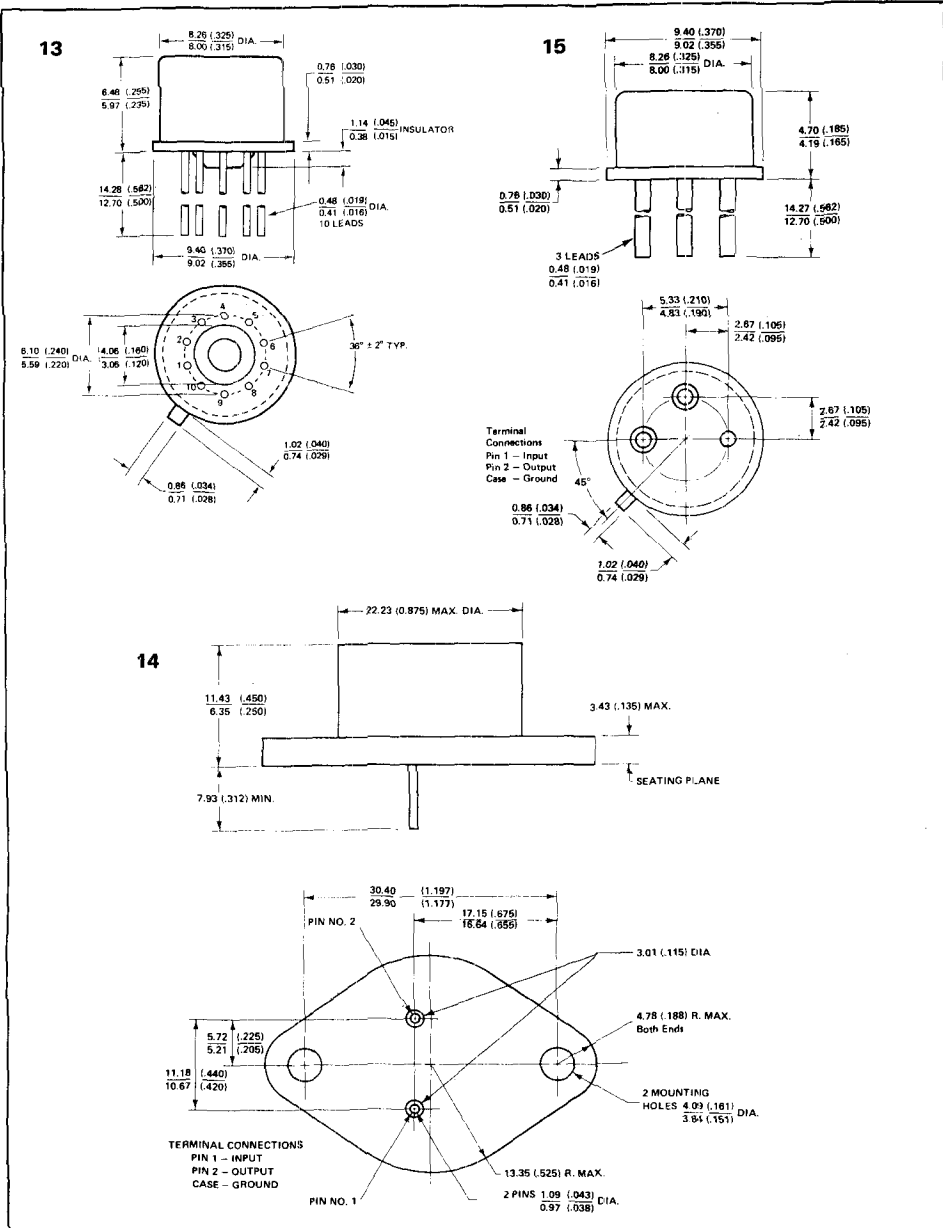
Outline Drawings

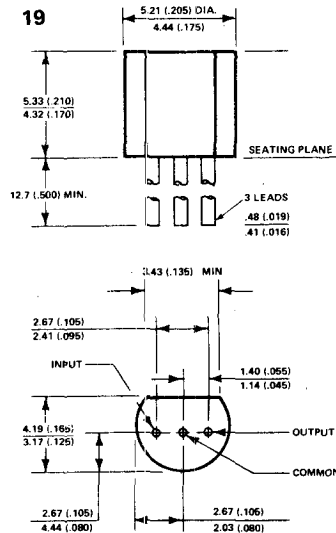
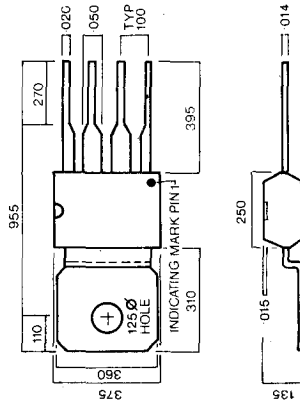
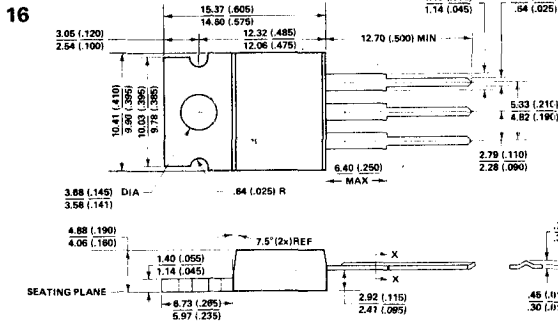




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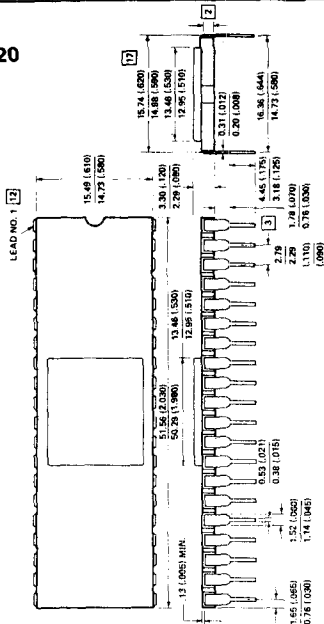




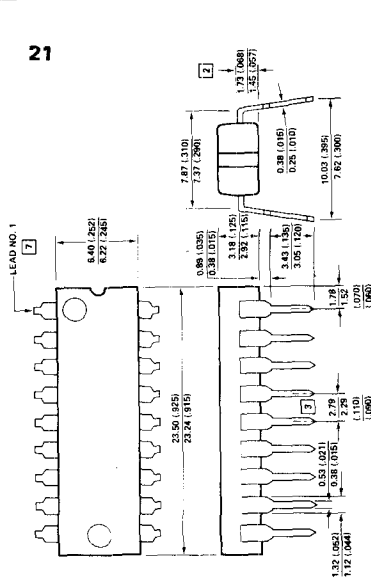
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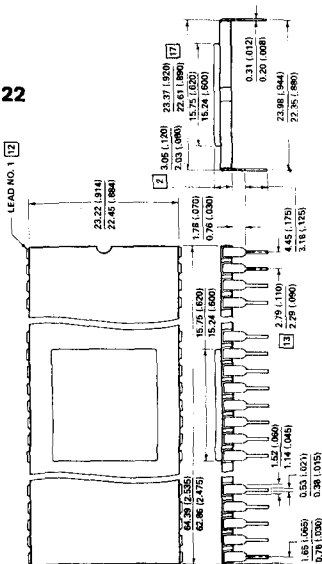
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