

LH0033C, LH0063C Fast and Damn Fast Buffer Amplifiers

GENERAL DESCRIPTION

The LH0033C and LH0063C are high speed, FET input, voltage follower/buffers designed to provide high current drive at frequencies from DC to over 100MHz. The LH0033C will provide $\pm 10\text{mA}$ into $1\text{k}\Omega$ loads ($\pm 100\text{mA}$ peak) at slew rates of $1500\text{V}/\mu\text{s}$. The LH0063C will provide $\pm 250\text{mA}$ into 50Ω loads ($\pm 500\text{mA}$ peak) at slew rates of up to $6000\text{V}/\mu\text{s}$. In addition, both exhibit excellent phase linearity up to 20MHz.

Both are intended to fulfil a wide range of buffer applications such as high speed line drivers, video impedance transformation, nuclear instrumentation amplifiers, op amp isolation buffer for driving reactive loads and high impedance input buffers for high speed A to D's and comparators. In addition, the LH0063C can continuously drive 50Ω coaxial cables or be used as a dither yoke driver for high resolution CRT displays. For additional applicators information, see AN-48.

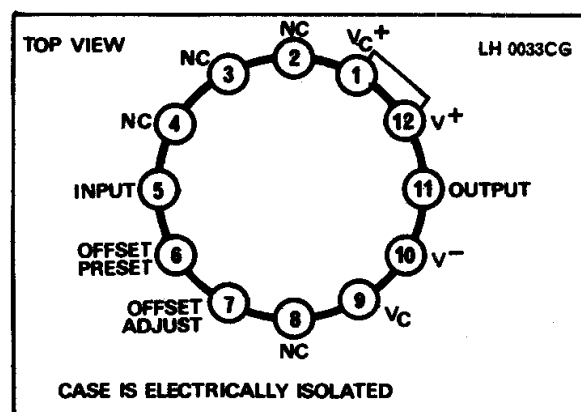
FEATURES

Damn fast (LH0063)	$6000\text{V}/\mu\text{s}$
Wide range single or dual supply operation	
Wide power bandwidth	DC to 100MHz
High output drive	$\pm 10\text{V}$ with 50Ω load
Low phase non-linearity	2 degrees
Fast rise times	2 ns
High current gain	120dB
High input resistance	$10^{10}\Omega$

ABSOLUTE MAXIMUM RATINGS

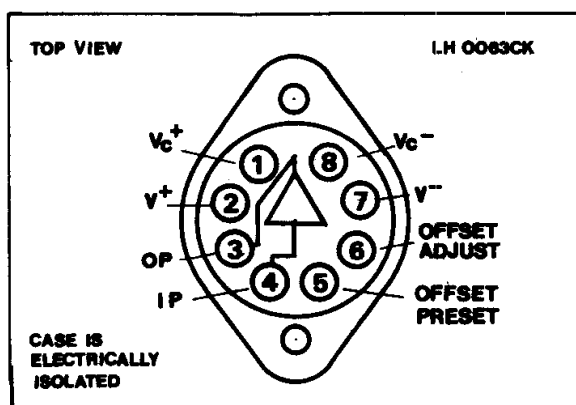
Supply Voltage ($V^+ - V^-$)	40V
Maximum Power Dissipation	
LH0063C	5W
LH0033C	1.5W
Maximum Junction Temperature	175°C
Input Voltage	Equal to Supplies
Continuous Output Current	
LH0063C	$\pm 250\text{mA}$
LH0033C	$\pm 100\text{mA}$
Peak Output Current	
LH0063C	$\pm 500\text{mA}$
LH0033C	$\pm 250\text{mA}$
Operating Temperature Range	-25°C to $+85^\circ\text{C}$
Storage Temperature Range	-65°C to 150°C
Lead Temperature (Soldering, 10 sec)	300°C

CONNECTION DIAGRAM



See outline drawing No. 99 for dimensions

CONNECTION DIAGRAM



See outline drawing No. 95 for dimensions

REFERENCE TABLE

Code	Stock No.
LH0033CG	34500R
LH0063CK	34506H