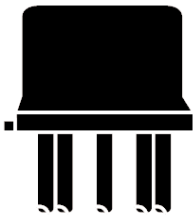


DATA SHEET



AN OVERVIEW OF PRODUCT FEATURES AND ELECTRICAL CHARACTERISTICS

FLH0033G/883



High Current, Linear Operational Amplifier in a Hermetic 8-Lead Package



Features

- High Gain
- Fast Rise Time
- High Input Impedance
- Wide Power Bandwidth – DC to 100MHz
- Available as DSCC SMD 8001401ZA
- Additional Screening Available



Description

SatCon Electronics has developed this Fast Buffer Amplifier for use in applications such as line drivers, and for use with analog to digital converters and comparators. Small size and high reliability make these devices suitable for use in industrial, aerospace, and military applications.



Absolute Maximum Ratings

@T_C = 25°C (Unless Otherwise Specified)

Symbol	Parameter	Value	Units
V _S	Supply Voltage	±40	V
V _{CM}	Input Voltage	±40	V
P _D	Power Dissipation (derate at 10 mW per °C)	1.5	W
θ _{JC}	Thermal Resistance, Junction to Case	40	°C/W
T _J	Operating Junction Temperature	-55 to +175	°C
T _{STG}	Storage Temperature	-65 to +150	°C
	Lead Temperature (10 sec)	300	°C



Recommended Operating Conditions

Symbol	Parameter	Value	Units
T_A	Ambient Operating Temperature Range	-55 to +125	°C



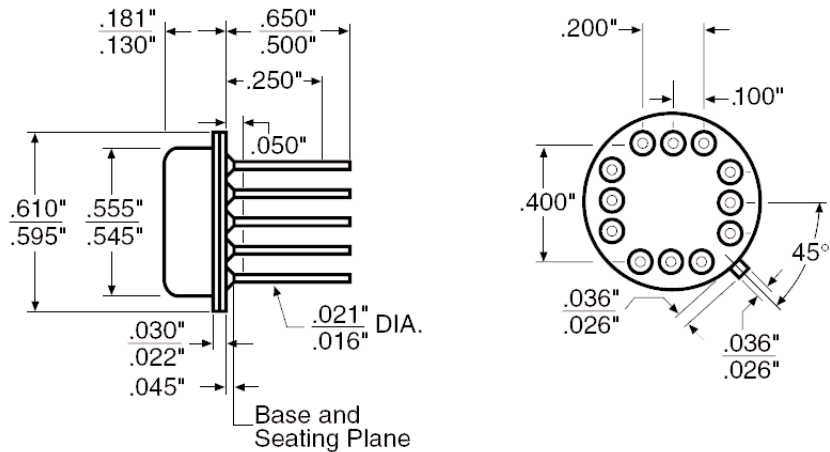
Electrical Characteristics

@ $T_A = 25^\circ\text{C}$, $V_S = \pm 15\text{Vdc}$
(Unless Otherwise Specified)

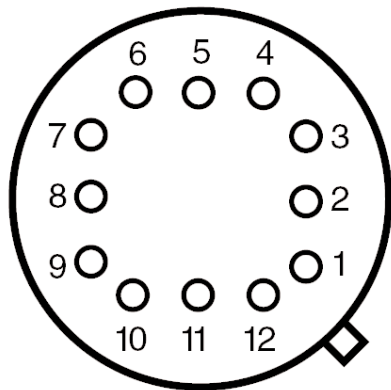
Symbol	Parameter	Min.	Max.	Units	Test Conditions
V_{OO}	Output Offset Voltage	-	± 10 ± 15	mV	$R_S = 100\text{k}\Omega$ $R_S = 100\text{k}\Omega$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
I_{IB}	Input Bias Current	-	2.5 10	nA	$T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
R_{IN}	Input Impedance	-	10^{10}	Ω	
A_V	Voltage Gain	0.97	1.0	V/V	$V_{IN} = 1V_{RMS}$, $R_S = 100\text{k}\Omega$, $R_L = 1\text{k}\Omega$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
V_O	Output Voltage Swing	± 12 ± 9	-	V	$R_L = 1\text{k}\Omega$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$ $R_L = 100\text{k}\Omega$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
R_{OUT}	Output Impedance	-	10	Ω	$V_{IN} = 1V_{RMS}$ $100\Omega \leq R_L \leq 1\text{k}\Omega$, $\pm 1\text{mA} \leq I_{OUT} \leq \pm 10\text{mA}$
I_{CC}	Supply Current	-	22	mA	$V_{IN} = 0\text{V}$
+SR	Positive Slew Rate	1000 500	-	V/ μs	$R_S = 50\Omega$, $R_L = 1\text{k}\Omega$, $V_{IN} = \pm 10\text{V}$ $R_S = 50\Omega$, $R_L = 1\text{k}\Omega$, $V_{IN} = \pm 10\text{V}$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
-SR	Negative Slew Rate	500	-	V/ μs	$R_S = 50\Omega$, $R_L = 1\text{k}\Omega$, $V_{IN} = \pm 10\text{V}$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
P_D	Power Consumption	-	660	mW	$V_{IN} = 0\text{V}$



Mechanical Outline



Pin Description



Pin No	Pin Name
1	V _{C+}
2	NC
3	NC
4	NC
5	Input
6	Offset Preset
7	Offset Adjust
8	NC
9	V _{C-}
10	V ₋
11	Output
12	V ₊



Contact Us



SatCon Electronics

165 Cedar Hill Street | Marlborough, MA 01752

Voice: 508.485.6350 | Fax: 508.485.5168

www.satconelectronics.com