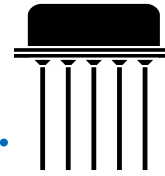




FLH0032G/883

Product Data Sheet

Ultra-Fast Operational Amplifier
In A Hermetic 12-Lead Package



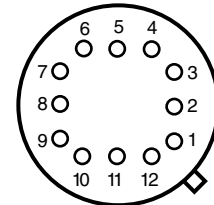
ULTRA-FAST OPERATIONAL AMPLIFIER IN A HERMETIC 12-LEAD PACKAGE

DESCRIPTION:

Film Microelectronics has developed this Ultra-Fast Operational Amplifier for use in any application where high speed comparators, integrators and amplifiers are required. Small size and high reliability make these devices suitable for use in industrial, aerospace, and military applications.

FEATURES:

- High Slew Rate - 500V/μs Typical
- Wide Bandwidth - 70MHz
- Low Input Offset Voltage - 5mV
- 100 mA Peak Output Current
- Available As DCSS SMD 8001301ZA
- Additional Screening Available



Pin Connection

- Pin 1: NC
Pin 2: Output Compensation
Pin 3: Balance/Compensation
Pin 4: Balance/Compensation
Pin 5: $-V_{IN}$
Pin 6: $+V_{IN}$
Pin 7: NC
Pin 8: NC
Pin 9: NC
Pin 10: $-V_S$
Pin 11: Output
Pin 12: $+V_S$

ABSOLUTE MAXIMUM RATINGS @ $T_C = 25^\circ\text{C}$, unless otherwise stated

Parameter	Rating	Units
V_S Supply Voltage	± 18	V
V_{CM} Input Voltage	± 18	V
P_D Power Dissipation (derate @ 10 mW per $^\circ\text{C}$)	1.5	W
T_J Operating Junction Temperature	-55 to +150	$^\circ\text{C}$
T_{STG} Storage Temperature	-65 to +150	$^\circ\text{C}$
Lead Temperature (10 sec)	300	$^\circ\text{C}$



RECOMMENDED OPERATING CONDITIONS

Parameter	Range	Units
V_S Supply Voltage	± 15	Vdc
T_A Ambient Operating Temperature Range	-55 to +125	$^\circ\text{C}$

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Website: www.filmmicroelectronics.com



FILM MICROELECTRONICS INCORPORATED
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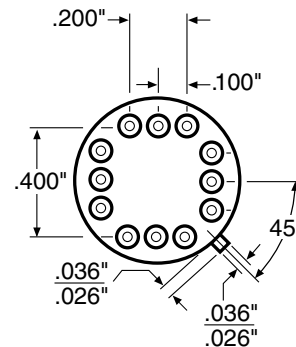
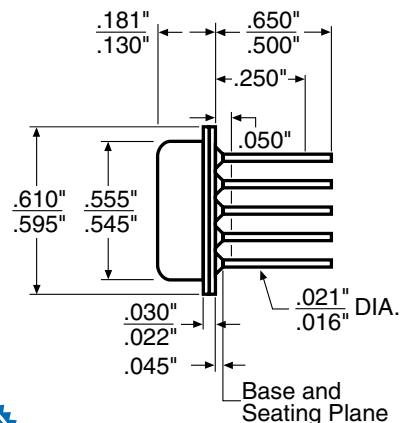
Ultra-Fast Operational Amplifier
In A Hermetic 12-Lead Package



Electrical Characteristics @ $T_A = 25^\circ\text{C}$, $V_S = \pm 15\text{Vdc}$, unless otherwise stated

Parameter	Min.	Max.	Units	Test Conditions
V_{IO} Input Offset Voltage	-	5.0 10.0	mV	$R_L = 100\text{k}\Omega$, $V_{IN} = 0\text{V}$ $R_L = 100\text{k}\Omega$, $V_{IN} = 0\text{V}$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
I_{IB} Input Bias Current	-	0.1 50	nA	$V_{IN} = 0\text{V}$ $V_{IN} = 0\text{V}$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
I_{IO} Input Offset Current	-	0.025 25	nA	$V_{IN} = 0\text{V}$ $V_{IN} = 0\text{V}$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
A_V Voltage Gain	57	-	dB	$V_O = \pm 10\text{V}$, $f = 1\text{kHz}$, $R_L = 1\text{k}\Omega$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
V_O Output Voltage Swing	± 10	-	V	$R_L = 1\text{k}\Omega$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
V_{CM} Input Voltage Range	± 10	-	V	$T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
CMRR Common Mode Rejection Ratio	50	-	dB	$\Delta V_{IN} = \pm 10\text{V}$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
SVRR Supply Voltage Rejection Ratio	50	-	dB	$\pm 5\text{V} \leq V_S \leq \pm 20\text{V}$, $T_A = -55^\circ\text{C}$ to $+125^\circ\text{C}$
I_{CC} Supply Current	-	20	mA	$I_O = 0\text{ mA}$
SR Slew Rate	350	-	V/ μs	$R_L = 1\text{k}\Omega$, $A_V = 1$, $\Delta V_{IN} = 20\text{V}$
t_r Small Signal Rise Time	-	20	ns	$A_V = +1$, $R_L = 1\text{k}\Omega$
t_d Small Signal Delay Time	-	25	ns	$A_V = +1$, $R_L = 1\text{k}\Omega$, $\Delta V_{IN} = 1\text{V}$

MECHANICAL OUTLINE



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