



FILM MICROELECTRONICS INCORPORATED  
A SaCot Company

# FLH0101/A

## PRODUCT DATA SHEET

### 5 AMP LINEAR WIDE BAND POWER OPERATIONAL AMPLIFIER IN A HERMETIC 8-LEAD TO-3 PACKAGE

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

Parameter		Rating	Units
$V_s$	Supply Voltage	$\pm 22$	V
$V_{CM}$	Input Voltage Range	$\pm 20$ , but $< \pm V_s$	V
$V_{IN}$	Differential Input Voltage	$\pm 40$ , but $< \pm V_s$	V
$I_{O(PK)}$	Peak Output Current (50 ms pulse)	5	A
$\theta_{JC}$	Thermal Resistance Junction to Case	2	$^\circ\text{C}/\text{W}$
$P_D$	Power Dissipation (derate linearly @ $2^\circ\text{C}/\text{W}$ to 0 @ $150^\circ\text{C}$ )	62	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	$^\circ\text{C}$

#### MECHANICAL OUTLINE

#### TERMINAL CONNECTIONS



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### ELECTRICAL CHARACTERISTICS @ $T_A = 25^\circ\text{C}$ , unless otherwise stated

Parameter		Min.	Max.	Units	Test Conditions
$V_{IO}$	Input Offset Voltage (Device type FLH0101A)		3 7	mV	$T_A = +25^\circ\text{C}$ $T_A = -55^\circ\text{C to } +125^\circ\text{C}$
$V_{IO}$	Input Offset Voltage (Device type FLH0101)		10 15	mV	$T_A = +25^\circ\text{C}$ $T_A = -55^\circ\text{C to } +125^\circ\text{C}$
$I_{IB}$	Input Bias Current (Device type FLH0101A)		300 300	pA nA	$T_A = +25^\circ\text{C}$ $T_A = -55^\circ\text{C to } +125^\circ\text{C}$
$I_{IB}$	Input Bias Current (Device type FLH0101)		1000 1000	pA nA	$T_A = +25^\circ\text{C}$ $T_A = -55^\circ\text{C to } +125^\circ\text{C}$
$I_{IO}$	Input Offset Current (Device type FLH0101A)		75 75	pA nA	$T_A = +25^\circ\text{C}$ $T_A = -55^\circ\text{C to } +125^\circ\text{C}$
$I_{IO}$	Input Offset Current (Device type FLH0101)		250 250	pA nA	$T_A = +25^\circ\text{C}$ $T_A = -55^\circ\text{C to } +125^\circ\text{C}$
$A_{VOL}$	Large Signal Voltage Gain	50	-	V/mV	$V_O = \pm 10\text{V}$ , $R_L = 10\Omega$
$V_O$	Output Voltage Swing	$\pm 11.7$ $\pm 11$	-	V	$R_{SC} = 0\Omega$ , $A_V = 1$ , $R_L = 100\Omega$ $R_{SC} = 0\Omega$ , $A_V = 1$ , $R_L = 10\Omega$
CMRR	Common Mode Rejection Ratio	85		dB	$V_{IN} = \pm 10\text{V}$
PSRR	Power Supply Rejection Ratio	85 80 80		dB	$\pm 5\text{V} \leq V_S \leq \pm 15\text{V}$ $+5\text{V} \leq V_S(+)\leq +15\text{V}$ , $V_S(-) = -15\text{V}$ $-5\text{V} \geq V_S(-)\geq -15\text{V}$ , $V_S(+)= +15\text{V}$
$I_S$	Supply Current	-	35	mA	
SR	Slew Rate (Device type FLH0101A)	7.5		V/ $\mu\text{S}$	$R_L = 10\Omega$ , $A_V = 1$
GBW	Gain-Product Bandwidth (Device type FLH0101A)	4		MHz	$R_L = \infty$ , $A_V = 1$

### RECOMMENDED OPERATING CONDITIONS

Parameter	Range	Units	
$T_A$	Ambient Operating Temperature Range	-55 to +125	$^\circ\text{C}$

