

LINEAR INTEGRATED CIRCUITS OPERATIONAL= AMPLIFIERS =

PRECISION OPERATIONAL AMPLIFIERS

The β M 108 series are precision operational amplifiers having specifications about a factor of ten better than FET amplifiers over their operating temperature range. In addition to low input currents, selected units are available, having extremely low offset voltage (refer to β M 108A series) making posible to eliminate offset voltage adjustments in most cases.

Excellent performance is achieved by applying an advanced ion-implantated super-beta process and providing on chip zener-zapping offset voltage trimming capabilities. The devices operate with supply voltages from +/-2 to +/-20V(+/-2) to +/-18V for β M 308) and have typ. 110 dB supply rejection to use unregulated supplies. Low supply current drain (typ. 300uA) makes the β M 108 attractive in battery operated/low power applications.Low offset current and low bias current provide excellent performance in high impedance circuits such as long period integrators, sample-and-holds and with piezoelectric and capacitive transducers.

Features ßM 308 Õ ... +70 oC 2 nA max. ßM 308 max. 5 nA Input bias current over temperature BM 108 .1. max. 3 nA ł 1 1. NC 2: Compensation 1 1 T. 14 3. Guard 13 4. Inverting input ł 12 5. Non-inverting input L 6. Guard 1 7. V-1 10 9 8. NC Ł 7. NC 6 Ł 1 10. Output 1 11. V+ Ł 1 12. Compensation 2 1 13. NC 114. NC PACKAGE TO-116 / TOP VIEW | 2 - 27



LINEAR INTEGRATED CIRCUITS -OPERATIONAL-AMPLIFIERS -

PM 108A PRECISION OPERATIONAL AMPLIFIERS

The BM 108A series are precision operational amplifiers having specifications about a factor of ten better than FET amplifiers over their operating temperature range. In addition to low input currents, these circuits have extremely low offset voltage, making possible to eliminate offset adjustments in most cases. Excellent performance is achieved by applying an advanced ion-implantated super-beta process and providing on chip zenerzapping offset voltage trimming capabilities. The devices operate with supply voltages from +/-2 to +/-20V(+/-2) to +/-18V for β M 308A) and have typ 110 dB supply rejection to use unregulated supplies. Low supply current drain (typ 300uA) makes the BM 108A attractive in battery operated/low power applications.Low offset current and low bias current provide excellent performance in high impedance circuits such as long period integrators, sampleand-holds and with piezoelectric and capacitive transducers.

Features

-	Oper	rating temperature	βM 108A βM 308A				
	Inpu	ut offset voltage		max.	0.5 mV		
-	- Input offset voltage drift max. 5 uV/oC						
—	•	it bias current over temperatur					
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ł	2.	Compensation 1	Ц	- u	1		
ł	з.	Guard	2	13	ł		
1	4.	Inverting input			ł		
ł	5.	Non-inverting input	Ð	12	:		
ł	6.	Guard		11	ł		
1	7.	V-	5	10	ł		
1	8.	NC		Ľ	1		
ł	9.	NC	6	2	1		
1	10.	Output ·	F	h	ľ		
ł	11.	V+	۲ <u>ــــ</u>		1		
1	12.	Compensation 2			ł		
ł	13.	NC			6		
ł	14.	NC			1		
1			PACKAGE TO-1	.16 / TOP	VIEW :		



LINEAR INTEGRATED CIRCUITS OPERATIONAL= =AMPLIFIERS =

PM 108AN PM 308AN PRECISION OPERATIONAL AMPLIFIERS

The BM 108AN series are precision operational amplifiers having specifications about a factor of ten better than FET amplifiers over their operating temperature range. In addition to low input currents, these circuits have extremely low offset voltage, making possible to eliminate offset adjustments in most cases. Excellent performance is achieved by applying an advanced ion-implantated super-beta process and providing on chip zenerzapping offset voltage trimming capabilities. The devices ope~ rate with supply voltages from +/-2 to +/-20V(+/-2) to +/-18V for pM 308AN) and have typ 110 dB supply rejection to use unregulated supplies.Low supply current drain (typ.300uA) makes the β M 108AN attractive in battery operated/low power applications.Low offset current and low bias current provide excellent performance in high impedance circuits such as long period integrators, sampleand-holds and with piezoelectric and capacitive transducers.

Features

 Operating temperature Input offset voltage Input offset voltage drift Input bias current over tempertaur 	βM 308AN Ο +7Ο οC max. Ο.5 mV max. 5 uV/οC
1. Compensation 1 2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2	
	PACKAGE MP-48 / TOP VIEW

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LINEAR INTEGRATED CIRCUITS =OPERATIONAL= =AMPLIFIERS =

JM 108N JM 308N PRECISION OPERATIONAL AMPLIFIERS

The β M 108N series are precision operational amplifiers having specifications about a factor of ten better than FET amplifiers over their operating temperature range. In addition to low input currents, selected units are available, having extremely low offset voltage (refer to β M 108AN series) making posible to eliminate offset voltage adjustment in most cases.

Excellent performance is achieved by applying an advanced ion-implantated super-beta process and providing on chip zener-zapping offset voltage trimming capabilities. The devices operate with supply voltages from +/-2 to +/-20V(+/-2 to +/-18V for β M 308N) and have typ 110 dB supply rejection to use unregulated supplies.Low supply current drain (typ.300uA) makes the β M 108AN attractive in battery operated/low power applications.Low offset current and low bias current provide excellent performance in high impedance circuits such as long period integrators, sample-and-holds and with piezoelectric and capacitive transducers.

Operating temperature	• Features	
- Input bias currentβM 108N max. 2 nA βM 308N max. 5 nA - Input bias current over temperature βM 108N max. 3 nA 1 1. Compensation 1 2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW 1	Operating temperature	
βM 308N max. 5 nA - Input bias current over temperature βM 108N max. 3 nA 1 Compensation 1 2 Inverting input 3. Non-inverting input 1 4. V- 1 5. NC 1 6. Output 1 7. V+ 1 8. Compensation 2 1 PACKAGE MP-48 / TOP VIEW 1		•
- Input bias current over temperature βM 108N max. 3 nA 1. Compensation 1 2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW	- Input bias current	
1. Compensation 1 2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW	<u>-</u> `	•
<pre>2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW</pre>	- Input bias current over	temperature βM 108N max. 3 nA
<pre>2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW</pre>		
<pre>2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW</pre>	- 	
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<pre>2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW</pre>	•	
<pre>2. Inverting input 3. Non-inverting input 4. V- 5. NC 6. Output 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW</pre>	1. Compensation 1	
3. Non-inverting input 1 4. V- 1 5. NC 1 6. Output 1 7. V+ 1 8. Compensation 2 1 PACKAGE MP-48 / TOF VIEW	•	
5. NC 6. Dutput 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW		
6. Dutput 7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW	1 4. V-	י ה פ
7. V+ 8. Compensation 2 PACKAGE MP-48 / TOF VIEW	1 5. NC	
8. Compensation 2 PACKAGE MP-48 / TOF VIEW 1	6. Output	ند <u>اند اند اند اند اند اند اند اند اند اند </u>
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