

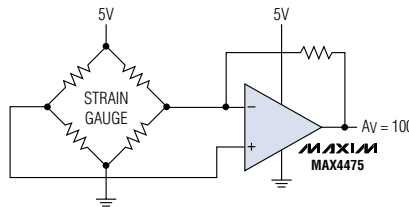
# 4.5nV/ $\sqrt{\text{Hz}}$ —LOWEST NOISE AND HIGH PRECISION OP AMPS IN SOT23

The MAX4475–79 have noise density of 4.5nV/ $\sqrt{\text{Hz}}$  at 1kHz,—the lowest noise of any op amp in a tiny SOT23 package. The MAX4236/7 use post-package trim to achieve  $\pm 5\mu\text{V}$  VOS with no chopper noise. They are also available in a SOT23 package. These op amps offer the best combination of ultra-low offset, drift, noise, input bias current, and wide gain-bandwidth product (GBWP).

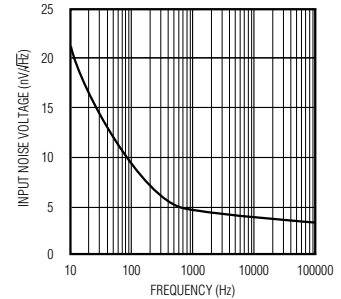
## MAX4475

- ◆ 4.5nV/ $\sqrt{\text{Hz}}$  Noise ( $f = 1\text{kHz}$ )
- ◆ 70 $\mu\text{V}$  Offset Voltage
- ◆ 0.3 $\mu\text{V}/^\circ\text{C}$  Offset Drift
- ◆ 1pA Input Bias Current
- ◆ 120dB  $A_{\text{VOL}}$  and PSRR

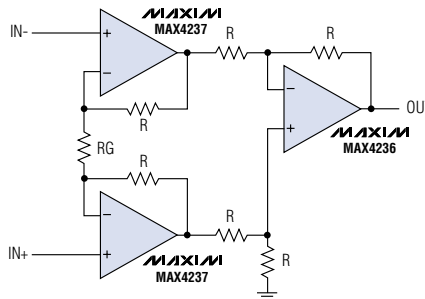
### DIFFERENTIAL BRIDGE AMPLIFIER



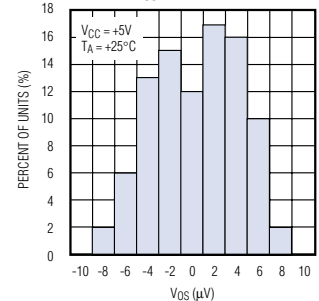
### INPUT VOLTAGE NOISE vs. FREQUENCY



### INSTRUMENTATION AMPLIFIER



### VOS DISTRIBUTION



## MAX4236

- ◆  $\pm 5\mu\text{V}$  Offset Voltage
- ◆  $\pm 0.6\mu\text{V}/^\circ\text{C}$  Offset Drift
- ◆ 1pA Input Bias Current
- ◆ 14nV/ $\sqrt{\text{Hz}}$  Noise
- ◆ 128dB  $A_{\text{VOL}}$  and 102dB CMRR

PART	# OF AMPS	VOLTAGE SUPPLY RANGE (V)	MIN. STABLE GAIN (V/V)	GBWP (MHz)	SHDN MODE	PIN-PACKAGE	PRICE† (\$)
MAX4236A/B	1	2.4 to 5.5	1	1.7	Yes	6-SOT23, 8- $\mu\text{MAX}$	0.95/0.65
MAX4237A/B	1	2.4 to 5.5	5	7.5	Yes	6-SOT23, 8- $\mu\text{MAX}$	0.95/0.65
MAX4475	1	2.4 to 5.5	1	10	Yes	6-SOT23, 8- $\mu\text{MAX}$	0.65
MAX4476/7/8	1/2/4	2.7 to 5.5	1	10	No	6-SOT23, 8- $\mu\text{MAX}$ , 14-TSSOP	0.65/0.98/1.45
MAX4488/9	1/2	2.7 to 5.5	5	42	Yes/No	6-SOT23, 8- $\mu\text{MAX}$	0.65/0.98

† 2,500-up recommended resale, FOB USA. Prices provided are for design guidance. International prices will differ due to local duties, taxes, and exchange rates. Prices are subject to change. Not all packages are offered in 1k increments, and some may require minimum order quantities.



**FREE Op Amps/Comparators Design Guide—Sent Within 24 Hours!**  
Includes: Reply Cards for Free Samples and Data Sheets

CALL TOLL-FREE 1-800-998-8800 for a Design Guide or Free Sample  
6:00 a.m. – 6:00 p.m. Pacific Time

**MAXIM**  
www.maxim-ic.com

2001 EDITION!  
FREE FULL-LINE DATA CATALOG  
ON CD-ROM



**MAXIM/DALLAS SEMICONDUCTOR**  
**DIRECT!**  
DISTRIBUTION  
1-888-MAXIM-IC

**ARROW**  
ARROW ELECTRONICS, INC.  
1-800-777-2776

**AVNET**  
electronics marketing  
1-800-332-8638

Maxim Integrated Products, 120 San Gabriel Drive, Sunnyvale, CA 94086, (408) 737-7600, FAX (408) 737-7194.

Distributed by Maxim/Dallas Direct!, Arrow, Avnet Electronics Marketing, Digi-Key, and Newark.

Distributed in Canada by Arrow and Avnet Electronics Marketing.

MAXIM is a registered trademark of Maxim Integrated Products, Inc. © 2001 Maxim Integrated Products.