1.1 Scope.

This specification covers the detail requirement for a precision monolithic laser-trimmed BiFET amplifier.

1.2 Part Number.

The complete part number per Table 1 of this specification is as follows:

Device	Part Number
−1	AD711S(X)/883B
−2	AD711T(X)/883B

1.2.3 Case Outline.

See Appendix 1 of General Specification ADI-M-1000: package outline:

(X)	Package	Description
Q	Q-8	8-Pin Cerdip Package

1.3 Absolute Maximum Ratings. (T_A = +25°C unless otherwise noted)

Supply Voltage ..... ±18 V
Internal Power Dissipation ..... 500 mW
Input Voltage ..... ±18 V
Output Short Circuit Duration ..... Indefinite
Differential Input Voltage ..... $+V_S$ and $-V_S$
Storage Temperature Range ..... −65°C to +150°C
Operating Temperature Range ..... −55°C to +125°C
Lead Temperature Range (Soldering 60 sec) ..... +300°C

NOTE
[1]Maximum package power dissipation vs. ambient temperature.

Package Type	MAXIMUM AMBIENT Temperature for Rating	DERATE ABOVE MAXIMUM Ambient Temperature
Q-8	+75°C	6.7 mW/°C

1.5 Thermal Characteristics.

Thermal Resistance θ_{JC} = 22°C/W for Q-8
θ_{JA} = 110°C/W for Q-8

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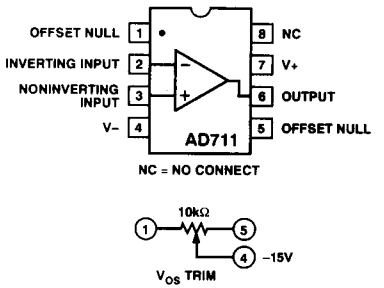
Table 1.

Test	Symbol	Device	Sub Group 1	Sub Group 2, 3	Test Condition[1]	Unit
Input Offset Voltage[2]	V_{OS}	−1	1.0	2.0		±mV max
		−2	1.0	1.0		
Input Offset Voltage Drift	TCV_{OS}	−1		20		±μV/°C max
		−2		10		
Power Supply Rejection Ratio	PSRR	−1	76	76		dB min
		−2	76	80		
Input Bias Current[3]	I_B	−1, −2	50		Either Input, V_{CM} = 0	±pA max
			100		Either Input, V_{CM} = +10 V	
Input Offset Current[3]	I_{OS}	−1, −2	25		V_{CM} = 0	±pA max
Slew Rate	t_{SR}	−1, −2	16		Unity Gain	V/μs min
Common-Mode Rejection Ratio	CMRR	−1	76	76	V_{CM} = ±10 V	dB min
		−2	76	80		
		−1	70	70	V_{CM} = ±11 V	
		−2	70	74		
Open-Loop Gain	A_{OL}	−1	150	100	V_O = ±10 V, R_L ≥ 2 kΩ	V/mV min
		−2	150	100		
Output Voltage Swing	V_{OUT}	−1, −2	+13/−12.5	±12	R_L ≥ 2 kΩ	±V min
Power Supply Current	I_Q	−1, −2	3.4			mA max

NOTES
[1]V_S = ±15 V unless otherwise noted.
[2]Input offset voltage specifications are guaranteed with V_{OS} unnulled at T_A = +25°C. Nulling will induce an additional ±3 μV/°C per mV of adjustment.
[3]Bias current specifications guaranteed after 5 minutes of operation at T_A = +25°C. For temperatures above +25°C, the current doubles every 10°C.

3.2.1 Functional Block Diagram and Terminal Assignments.



3.2.4 Microcircuit Technology Group.

This microcircuit is covered by technology group (85).

4.2.1 Life Test/Burn-In Circuit.

Steady state life test is per MIL-STD-883 Method 1005. Burn-in is per MIL-STD-883 Method 1015 test condition (B).