

1.1 Scope.

This specification covers the detail requirements for a precision 1.2 volt IC reference.

1.2 Part Number.

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

Device	Part Number
- 1	AD589SH/883B
- 2	AD589TH/883B

1.2.3 Case Outline.

See Appendix 1 of General Specification ADI-M-1000: package outline: H-2A.

1.3 Absolute Maximum Ratings. ($T_A = +25^\circ\text{C}$ unless otherwise noted)

Current to Ground	10mA
Reverse Current	10mA
Power Dissipation (25°C)	125mW
Storage Temperature Range	-65°C to $+150^\circ\text{C}$
Operating Temperature Range	-55°C to $+125^\circ\text{C}$
Lead Temperature Range (Soldering 10sec)	$+300^\circ\text{C}$

1.5 Thermal Characteristics.

Thermal Resistance $\theta_{JC} = 30^\circ\text{C}/\text{W}$
$\theta_{JA} = 150^\circ\text{C}/\text{W}$

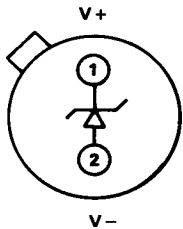
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Table 1.

Test	Symbol	Device	Design Limit (a + 25°C	Sub Group 1	Sub Group 2, 3	Sub Group 4	Test Condition	Units
Output Voltage Error	V_{OUT}	- 1, 2 - 1, 2 - 1, 2	25 30 30	25 30 30			$V = 1.225V, I_{IN} = 500\mu A$ $I_{IN} = 50\mu A$ $I_{IN} = 5mA$	$\pm mV \text{ max}$
Output Voltage Change vs. Current	$\Delta V_{OUT}/\Delta I_{IN}$	- 1, 2	5	5	7.5		$50\mu A \leq I_{IN} \leq 5mA$	$\pm mV \text{ max}$
Output Voltage Temperature Coefficient	$\Delta V_{OUT}/\Delta T$	- 1 - 2	100 50		100 50		$T_A = +25^\circ C \text{ to } +125^\circ C$ $T_A = +25^\circ C \text{ to } -55^\circ C$	$\pm ppm/^\circ C \text{ max}$
Dynamic Output Resistance	R_{OUT}	- 1, 2	2	2	4		$450\mu A \leq I_{IN} \leq 550\mu A$	$\Omega \text{ max}$

3.2.1 Functional Block Diagram and Terminal Assignments.

Bottom View



3.2.4 Microcircuit Technology Group.

This microcircuit is covered by technology group (59).

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).

Bottom View

