



T-58-07

10 Volt IC Reference

ADREF01

1.1 Scope.

This specification covers the detail requirements for a 10 volt IC reference.

1.2 Part Number.

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

Device	Part Number
-1	ADREF01Q/883B
-2	ADREF01AQ/883B

1.2.3 Case Outline.

See Appendix 1 of General Specification ADI-M-1000: package outline: Q-8A.

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

Input Voltage V_{IN} to Ground	+36V
Power Dissipation	500mW
Storage Temperature Range	-65°C to $+150^\circ\text{C}$
Lead Temperature (Soldering 10sec)	$+300^\circ\text{C}$

1.5 Thermal Characteristics.

Thermal Resistance $\theta_{JC} = 22^\circ\text{C/W}$
 $\theta_{JA} = 110^\circ\text{C/W}$

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Test	Symbol	Device	Design Limit @ +25°C	Sub Group 1	Sub Group 2, 3	Sub Group 4	Test Condition ¹	Units
Quiescent Current	I _{CC}	-1, 2	4	4				+ mA max
Output Voltage Error	V _{OUT}	-1 -2	50 30	50 50		30		± mV max
Output Voltage Temperature Coefficient	V _{OUT} /dT	-1 -2	25 8.5		25 8.5		T _A = -55°C to +125°C	± ppm/°C
Gain Adjustment	V _{ADJ}	-1, 2	+300 -100	+300 -100				mV min
Line Regulation	VR _{LINE}	-1, 2	100	100	100		13.5V ≤ V _{IN} ≤ 36V	± μV/V max
Load Regulation, Sourcing	VR _{LOAD}	-1, 2	100	100	100		I _L = 0 to 10mA	± μV/mA max
Load Regulation, Sinking	I _{OUT}	-1, 2	100	100	100		I _L = -10 to 0mA	± μV/mA max
Output Short-Circuit Current	I _{OS}	-1, 2	50	50			To Ground	+ mA max
Output Short-Circuit Current	I _{OS}	-1, 2	50	50			To V _{IN}	- mA max

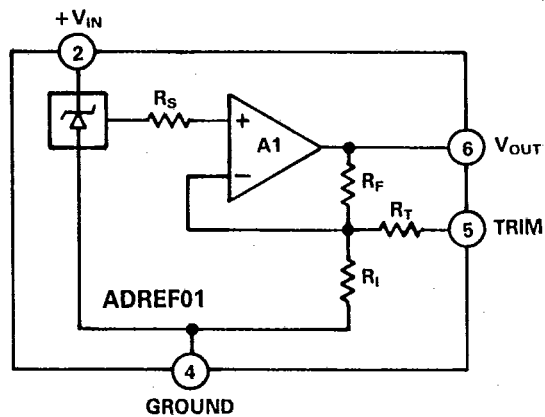
NOTE

¹T_A = +25°C; V_{CC} = +15V unless otherwise stated.

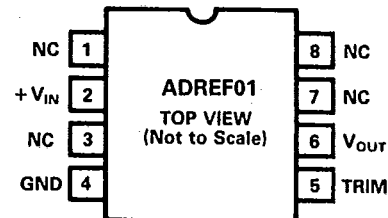
Table 1.

ADREF01**3.2.1 Functional Block Diagram and Terminal Assignments.**

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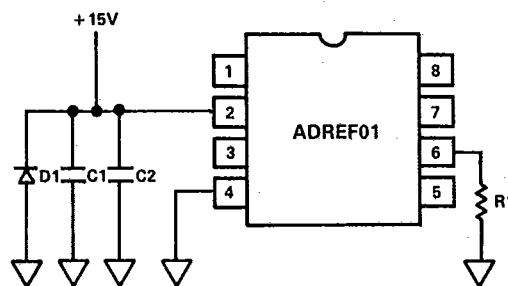
NOTE: MAKE NO CONNECTIONS TO PINS 1, 3, 7 AND 8.

**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).



NOTE: D1 = MR-820
C1 = 0.1 μ F
C2 = 47 μ F
R1 = 1k Ω 1/2 WATT AT 25°C