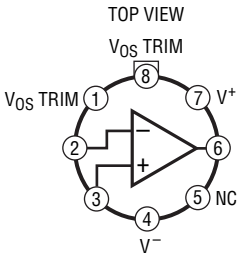
Low Noise 200°C Op Amp

FEATURES

- 100% Tested at 200°C
- Absolute Maximum Operating Temperature 225°C
- Precision Specifications Over Extended Temperature Range
- Direct Replacement for OP-27 Series

PIN CONFIGURATION



H PACKAGE
METAL CAN

T_{JMAX} = 225°C, θ_{JA} = 150°C/W

ORDER INFORMATION

ORDER PART NUMBER	PART MARKING	PACKAGE DESCRIPTION	TEMPERATURE RANGE
LT1007XH	LT1007XH	8-Lead TO-5 Metal Can	–55°C to 200°C

These parts are only available in SnPb finish.

ELECTRICAL CHARACTERISTICS

Supply Voltage = ±15V. (Note 1)

SYMBOL	PARAMETER	CONDITIONS	MIN/MAX 125°C	TYP 150°C	TYP 175°C	MIN/MAX 200°C	TYP 225°C	UNITS
V_{OS}	Input Offset Voltage	V_{CM} = 0	0.16	0.07	0.12	1.5	10	mV
I_{OS}	Input Offset Current	V_{CM} = 0	85	30	100	3000	5000	nA
I_B	Bias Current	V_{CM} = 0	95	50	750	12000	20000	nA
A_V	Voltage Gain	V_{OUT} = ±10V, R_L = 2k	2000	4000	2500	100	20	V/mV
CMRR	Common Mode Rejection	V_{CM} = ±10V	104	117	114	100	94	dB
PSRR	Power Supply Rejection	V_S = ±10V to ±15V	100	117	114	86	55	dB
V_{OUT}	Output Voltage Swing	R_L = 2k	V_S – 3	V_S – 2	V_S – 2	V_S – 3	V_S – 3	V
I_S	Supply Current	V_{OUT} = 0	5.7	2.8	2.8	6	2.5	mA
I_{SC}^-	Short-Circuit Low	V_{OUT} = 0 Min		20	17	5	9	mA
I_{SC}^+	Short-Circuit High	V_{OUT} = 0 Min		17	14.5	5	5	mA
SR	Slew Rate	ΔV = ±5V		1.2	1.1	0.7	0.8	V/μS

Note 1: Devices are 100% tested at 200°C ±3°C to the limits shown. Since parameters change rapidly with temperature, devices are guaranteed at 190°C ±3°C and QA testing is done at 190°C ±3°C. For normal operating temperature range specifications please see the LT1007M data sheet.

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