

## 低失调单运算放大器

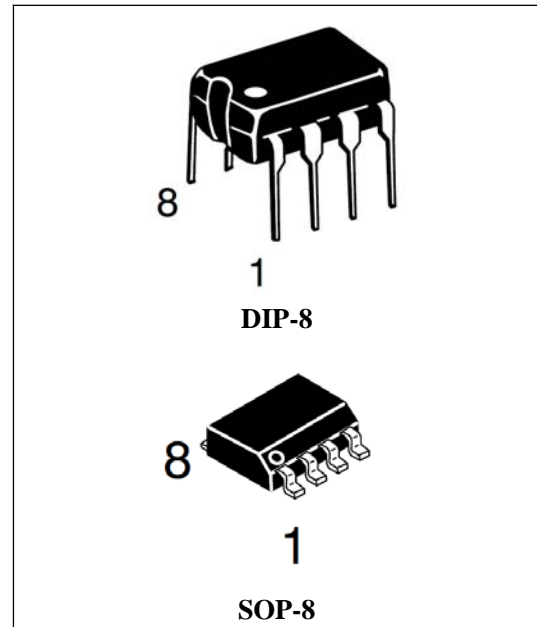
### 概述

OP07C 是一个高精密度运算放大器,其最大失调电压控制在 150 $\mu$ V。增益达 200V/mV。因此 OP07C 特别适合用于仪表等方面。

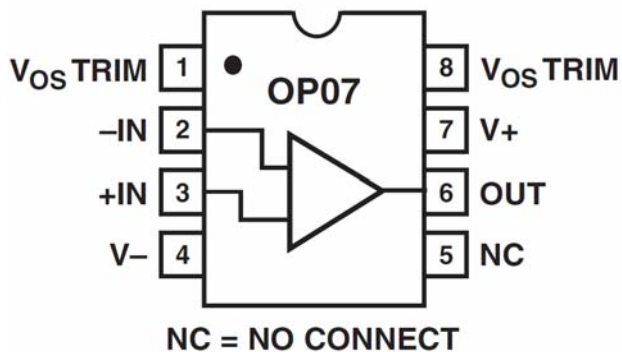
OP07C 有着较宽的输入电压范围 ( $\pm 13$ V), 以及高达 100DB 以上的共模抑制比 (CMRR), 其高闭环增益电路中亦保持出色的线性度和增益精度。

### 主要特点

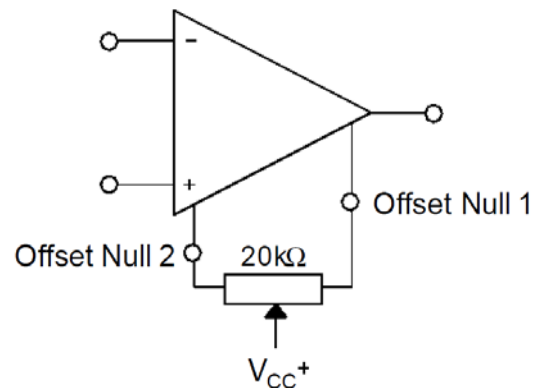
- 最大失调电压. 150 $\mu$ V MAX
- 低失调电流  $I_{io}=1.3$ nA typ
- 工作电压范围宽  $\pm 3$ V to  $\pm 20$ V



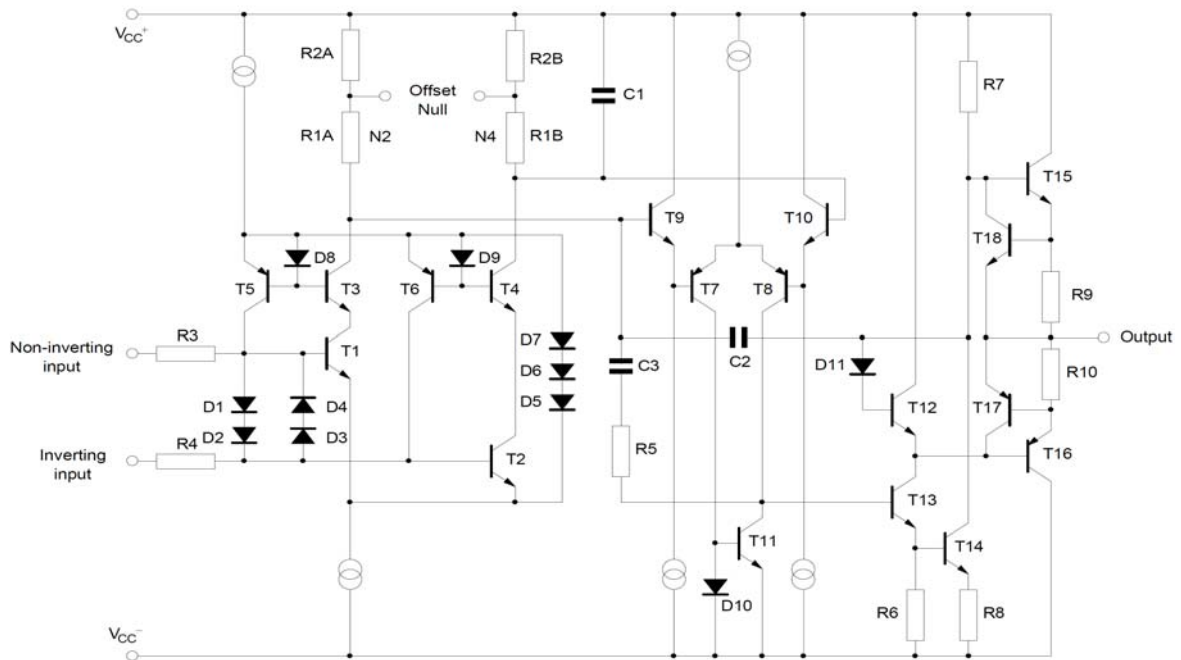
### 引脚信息



### 输入失调调零电路



框图



极限参数 (绝对最大额定值, 若无其它规定,  $T_{amb}=25^{\circ}C$ )

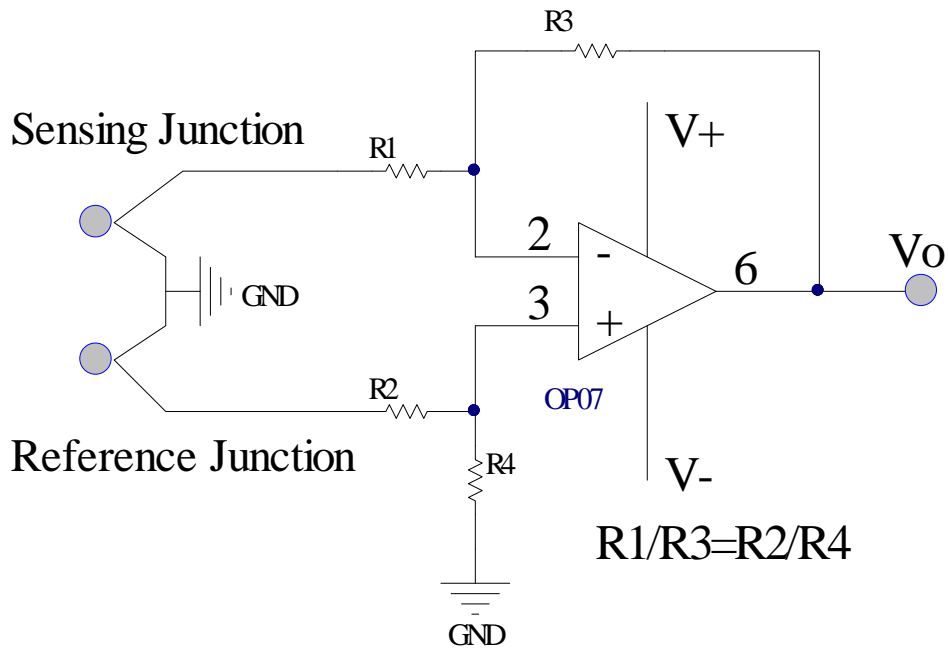
参数名称	符号	数值	单位
电源电压	$V_{cc}$	$\pm 20$	V
输入电压	$V_i$	$\pm 18$	V
输入差动电压	$V_{id}$	$\pm 30$	V
工作温度	$T_{OPR}$	$-10 \sim +85$	$^{\circ}C$
贮存温度	$T_{STG}$	$-40 \sim +150$	$^{\circ}C$

电特性 ( $V_{cc}=\pm 15V$ ,  $T_{amp}=25^{\circ}C$  特殊情况另外说明)

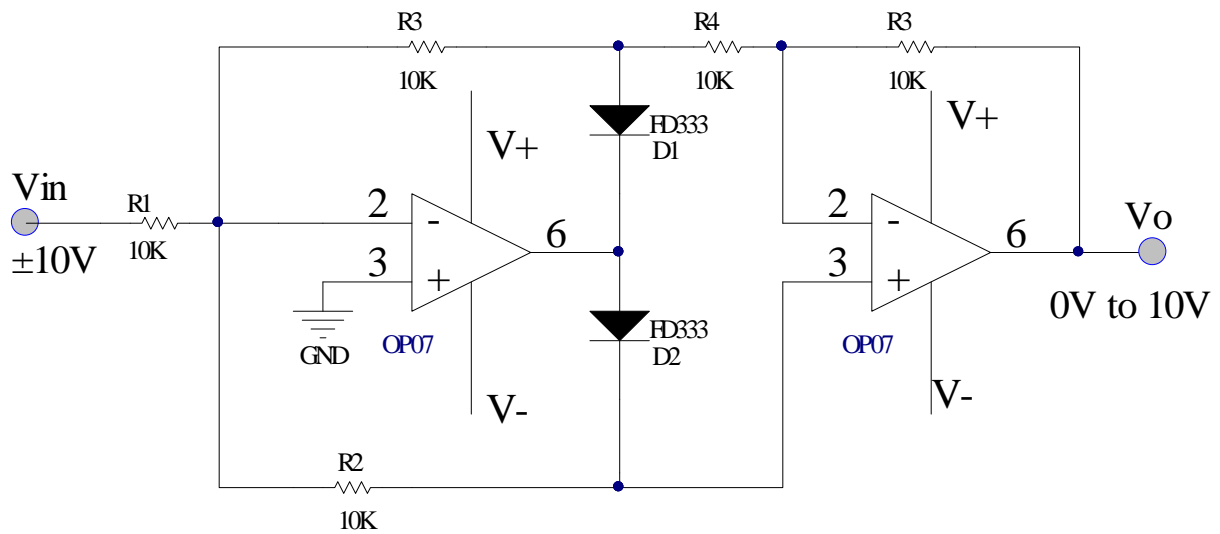
符号	描述	数值			单位
		最小值	典型值	最大值	
$V_{io}$	失调电压 $0^{\circ}C < T_{amb} < 70^{\circ}C$			150	$\mu V$
				250	$\mu V$
$DV_{io}$	失调温度漂移			1.8	$\mu V/^{\circ}C$
$I_{io}$	输入失调电流			8	nA
$I_{ib}$	输入偏置电流			28	nA
$V_{icm}$	输入共模电压 $0^{\circ}C < T_{amb} < 70^{\circ}C$	$\pm 13$	$\pm 13.5$		V
		$\pm 13$			
CMR	共模抑制比	100			dB
SVR	电源抑制比	90			dB
$A_{vd}$	Large Signal Voltage Gain $V_{CC} = \pm 15V, R_L = 2k\Omega, V_O = \pm 10V,$	100			V/mV

V <sub>opp</sub>	输出峰值 R <sub>L</sub> = 10kΩ R <sub>L</sub> = 2kΩ	±12 ±11.5			V
GBP	增益带宽 R <sub>L</sub> = 2kΩ, C <sub>L</sub> = 100pF, f = 100kHz)		0.5		MHz
ICC	电源电流 (no load) 0°C < T <sub>amb</sub> < 70°C V <sub>CC</sub> = ±3V		3.8 1	6 3	mA

典型应用图

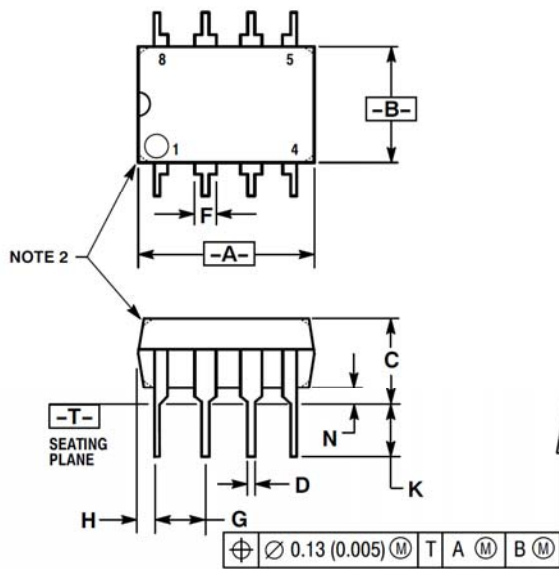


高稳定热电偶放大



精密绝对值电路

封装信息

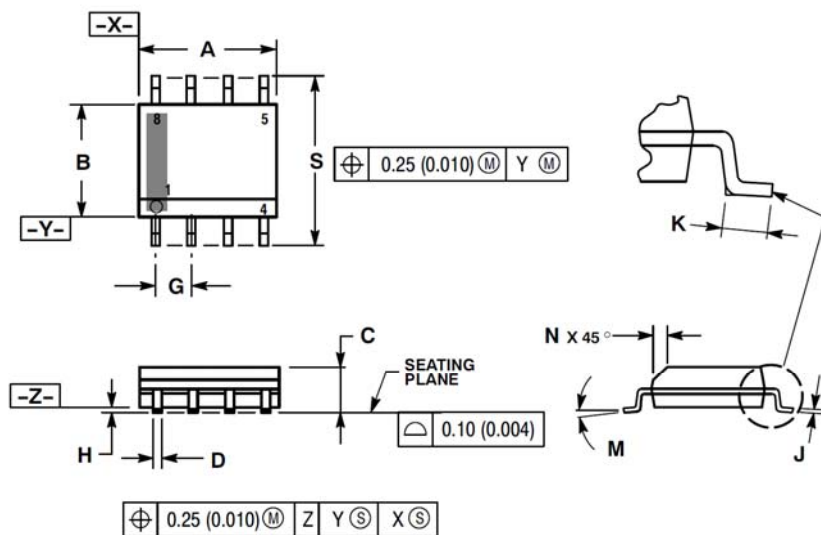


DIP8

NOTES:

1. DIMENSION L TO CENTER OF LEAD WHEN FORMED PARALLEL.
2. PACKAGE CONTOUR OPTIONAL (ROUND OR SQUARE CORNERS).
3. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	9.40	10.16	0.370	0.400
B	6.10	6.60	0.240	0.260
C	3.94	4.45	0.155	0.175
D	0.38	0.51	0.015	0.020
F	1.02	1.78	0.040	0.070
G	2.54 BSC		0.100 BSC	
H	0.76	1.27	0.030	0.050
J	0.20	0.30	0.008	0.012
K	2.92	3.43	0.115	0.135
L	7.62 BSC		0.300 BSC	
M	---		10°	
N	0.76	1.01	0.030	0.040



SOP8

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. DIMENSION A AND B DO NOT INCLUDE MOLD PROTRUSION.
4. MAXIMUM MOLD PROTRUSION 0.15 (0.006) PER SIDE.
5. DIMENSION D DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.127 (0.005) TOTAL IN EXCESS OF THE D DIMENSION AT MAXIMUM MATERIAL CONDITION.
6. 751-01 THRU 751-06 ARE OBSOLETE. NEW STANDARD IS 751-07.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.80	5.00	0.189	0.197
B	3.80	4.00	0.150	0.157
C	1.35	1.75	0.053	0.069
D	0.33	0.51	0.013	0.020
G	1.27 BSC		0.050 BSC	
H	0.10	0.25	0.004	0.010
J	0.19	0.25	0.007	0.010
K	0.40	1.27	0.016	0.050
M	0°		8°	
N	0.25	0.50	0.010	0.020
S	5.80	6.20	0.228	0.244