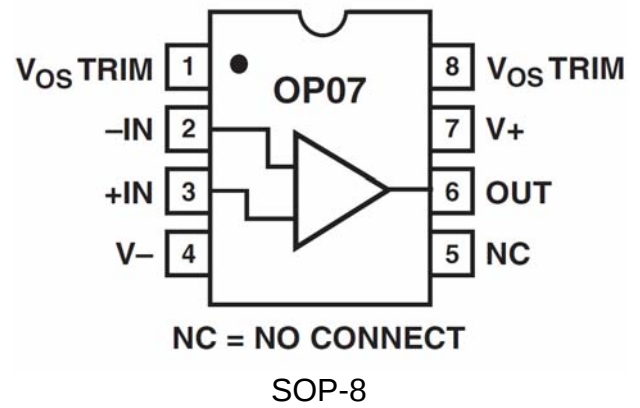


Summary

OP07C is a high precision operational amplifier, and its maximum offset voltage is controlled at 150uV. The gain reaches 200V/mV. Therefore, OP07C is especially suitable for instruments and other aspects.

OP07C has a wide input voltage range. ($\pm 13V$), and the common mode rejection ratio (CMRR) of more than 100DB, which also maintains excellent linearity and gain accuracy in high closed-loop gain circuits.

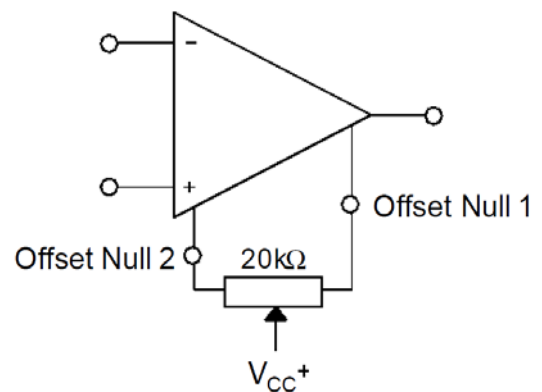
Pin information



Main feature

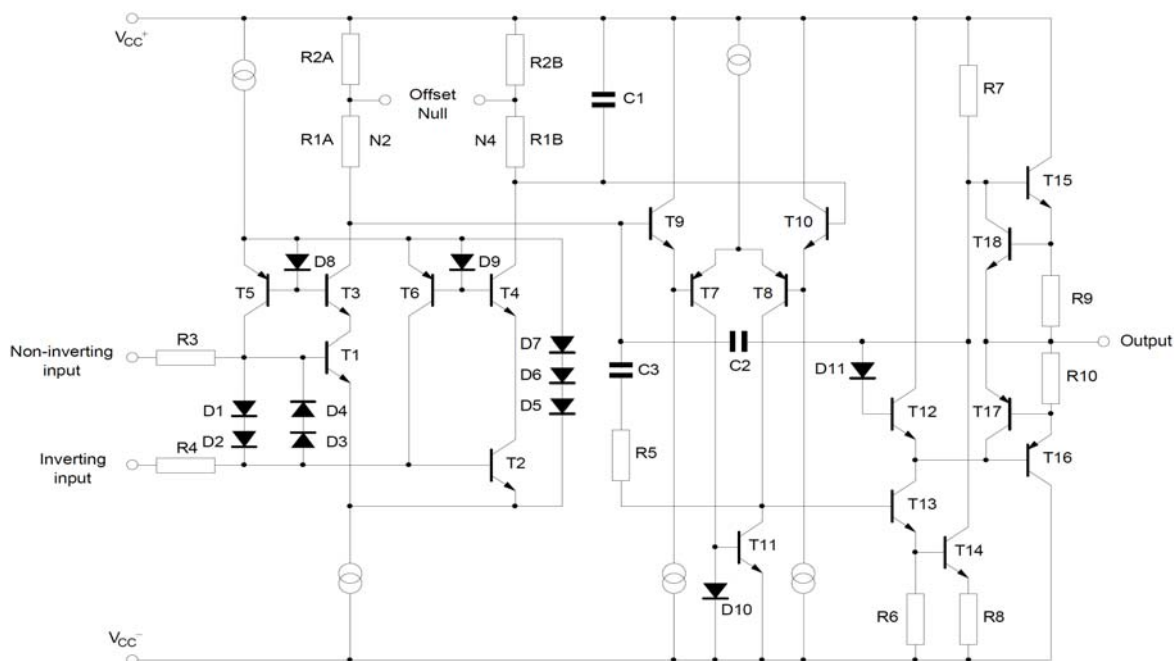
- Maximum offset voltage 150uV MAX
- Low offset current $I_{io}=1.3nA$ typ
- The working voltage range is $\pm 3V$ to $\pm 20V$.

Input offset zeroing circuit



Block graph

Low offset single operational amplifier



Limit parameter (absolute maximum rating, unless otherwise specified, Tamb=25°C)

Parameter name	symbol	numerical value	unit
Power supply voltage	Vcc	±20	V
input voltage	Vi	±18	V
Input differential voltage	Vid	±30	V
Working temperature	TOPR	- 10~+85	°C
storage temperature	TSTG	- 40~+150	°C

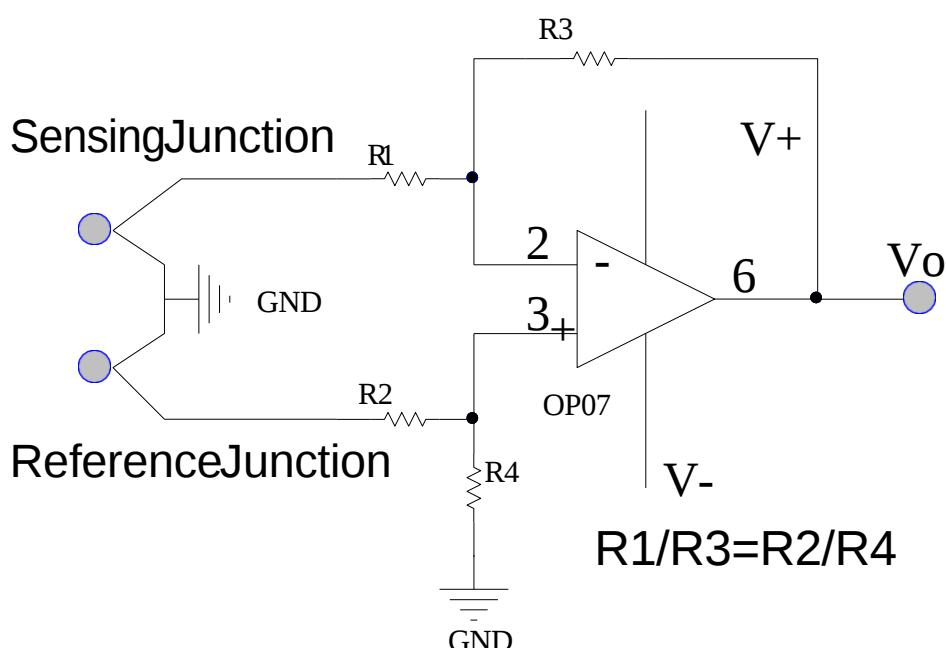
Electrical characteristics (VCC = 15V, Tamb = 25°C shall be specified separately)

symbol	describe	numerical value			unit
		minimum value	typical value	maximum	
Vio	offset voltage 0°C<Tamb<70°C			150	uV
				250	uV
DVio	Offset temperature drift			1.8	uV/°C
Iio	Input offset current			8	nA
Iib	Input bias current			28	nA
Vicm	Input common- mode voltage 0°C<Tamb<70°C	±13 ±13	±13.5		V
CMR	common mode rejection ratio	100			dB
SVR	Power supply rejection ratio	90			dB
Avd	Large Signal Voltage Gain VCC=±15V, RL=2kΩ, VO=±10V,	100			V/mV

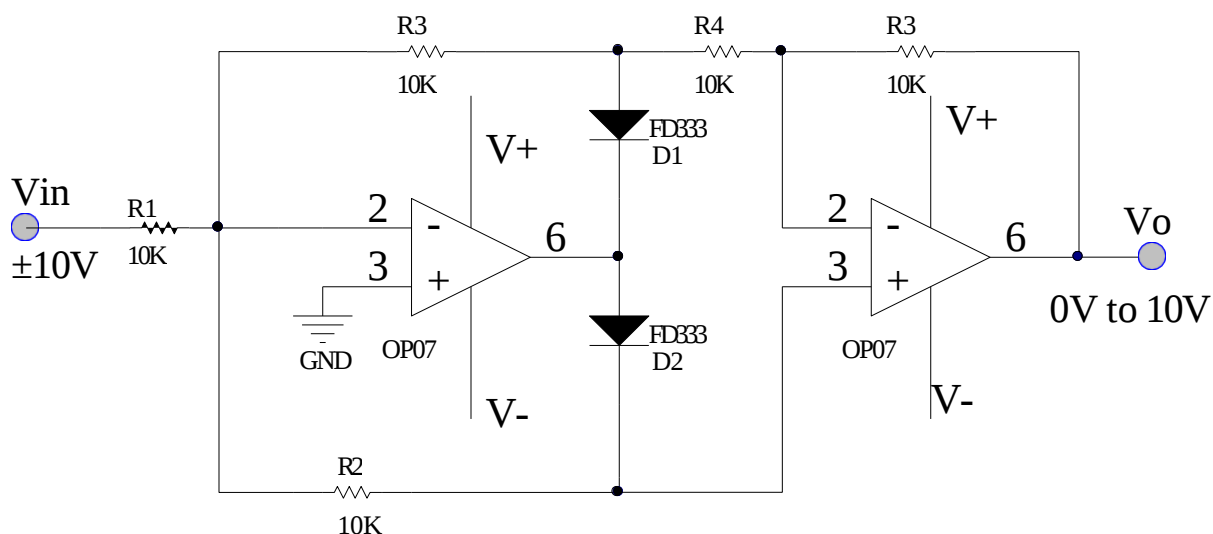
Low offset single operational amplifier

V _{opp}	Output R _L = 10kΩ R _L = 2kΩ	±12 ±11.5			V
GBP	Gain bandwidth R _L = 2kΩ, C _L = 100pF, f = 100KHz)		0.5		MHz
ICC	Powersupplycurrent(noload) 0°C < T _{amb} < 70°C V _{CC} = ±3V		3.8 1	6 3	mA

Typical application diagram



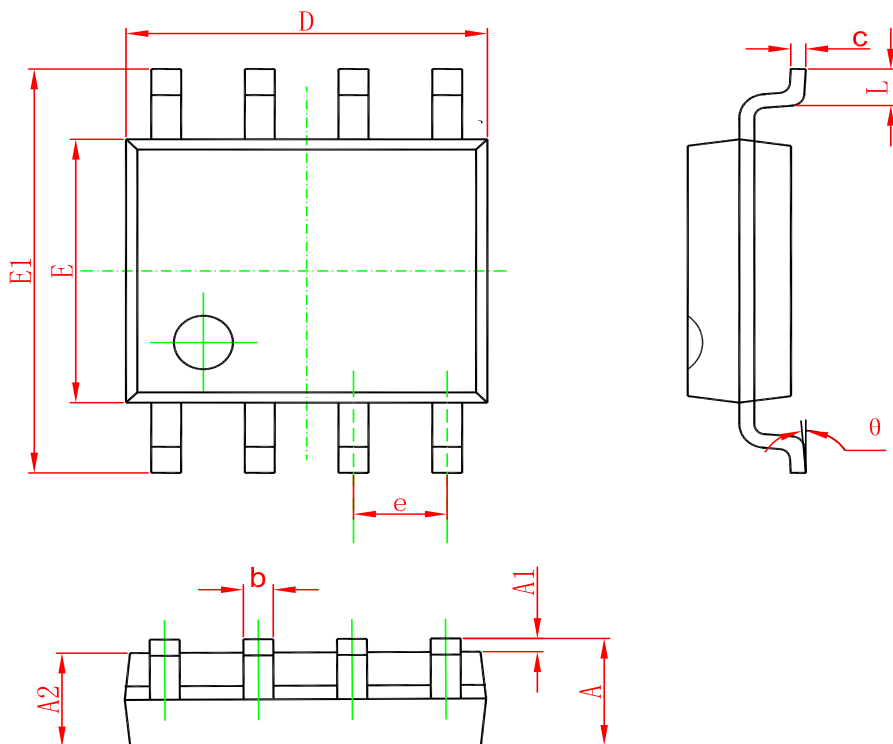
High stability thermocouple amplification



Precision absolute value circuit

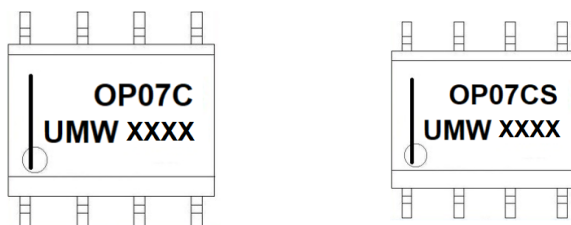
PACKAGE OUTLINE DIMENSIONS

SOP-8



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270(BSC)		0.050(BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

Marking



Ordering information

Order code	Package	Baseqty	Deliverymode
UMW OP07CDR	SOP-8	2500	Tape and reel
UMW OP07CSZ	SOP-8	2500	Tape and reel