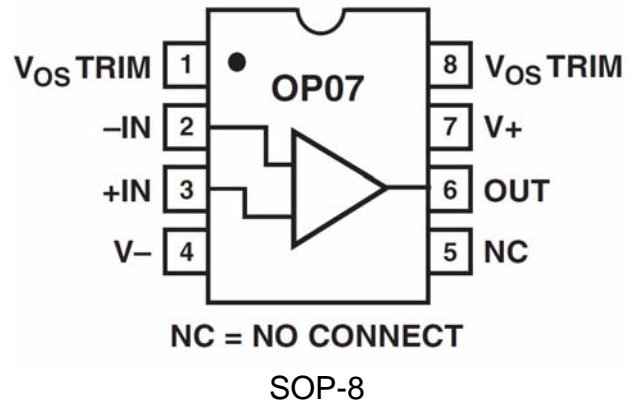


Summary

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.

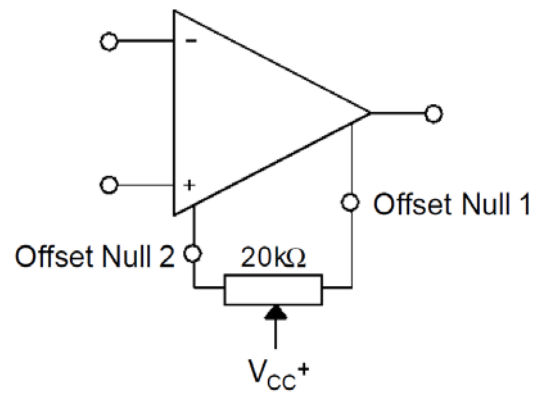
Pin information



Main feature

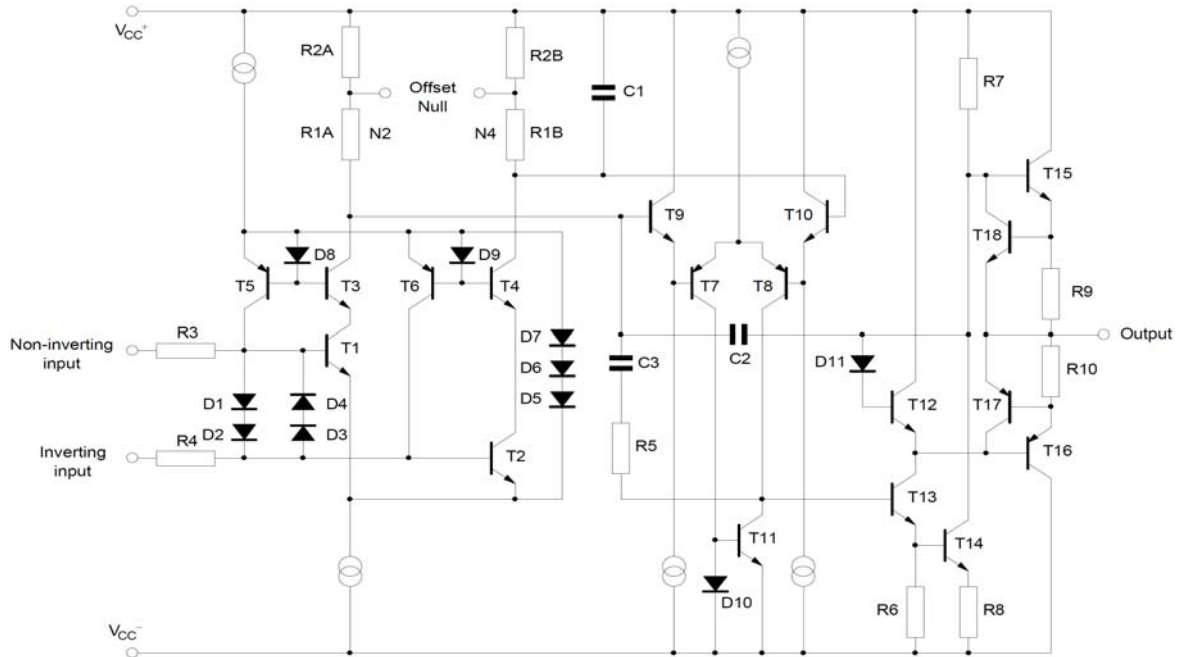
- Maximum offset voltage 150uV MAX
- Low offset current $i_{io}=1.3nA$ typ
- The working voltage range is $\pm 3V$ to $\pm 20V$.

Input offset zeroing circuit



Low offset single operational amplifier

Block graph



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

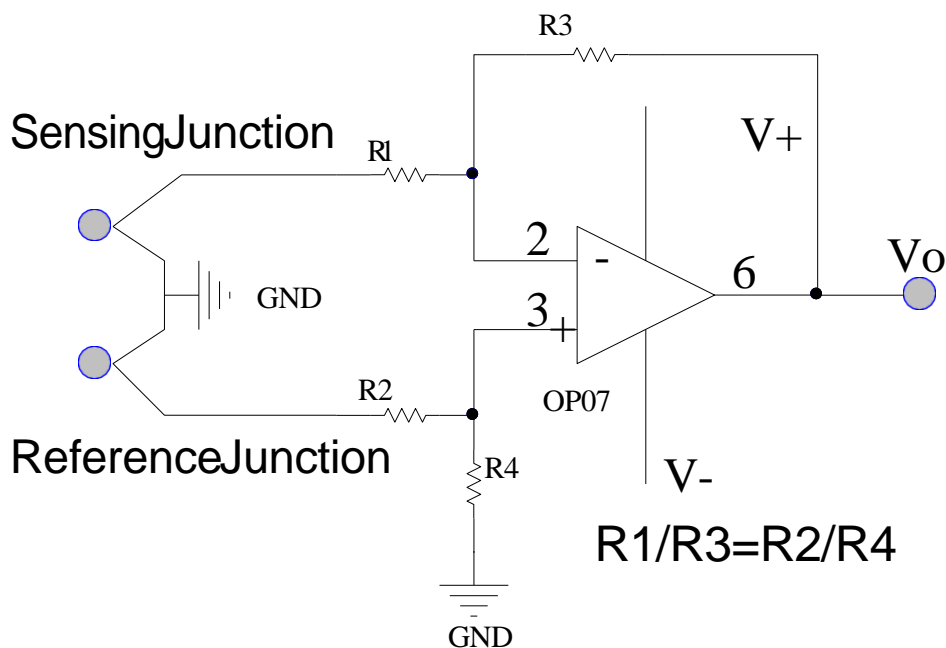
Electrical characteristics (VCC = 15V, Tamb = 25°C shall be specified separately)

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
lio	Input offset current			8	nA
lib	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

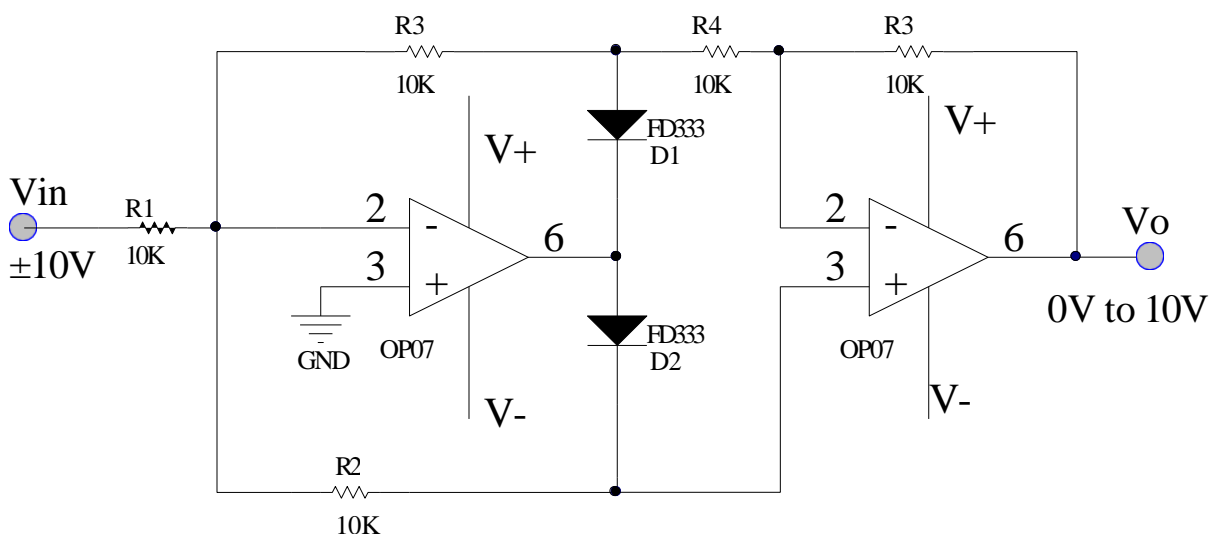
Low offset single operational amplifier

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	6	mA
			1	3	

Typical application diagram



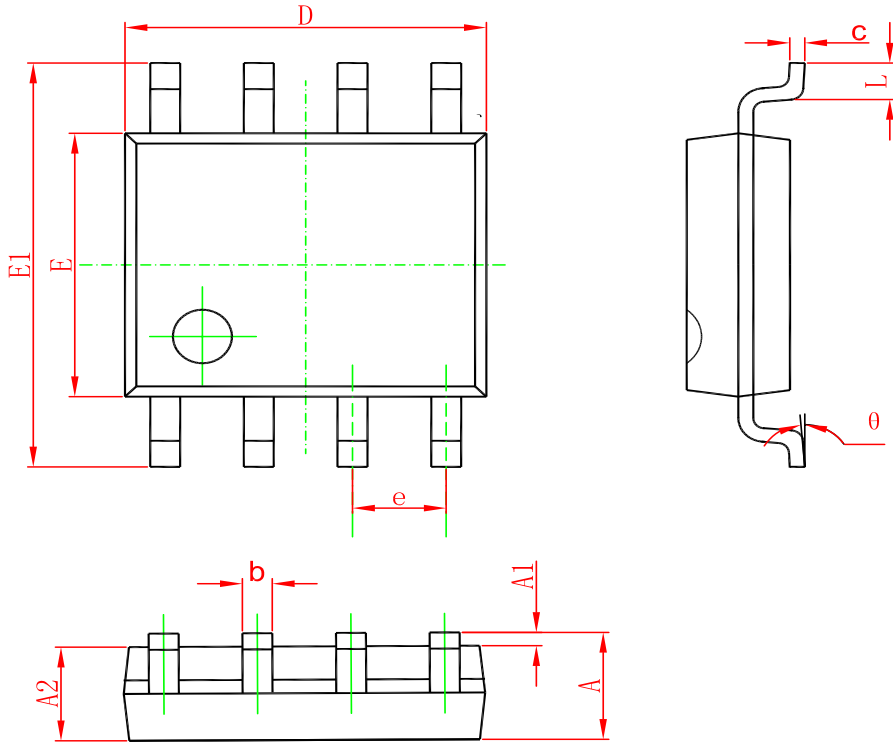
High stability thermocouple amplification



Precision absolute value circuit

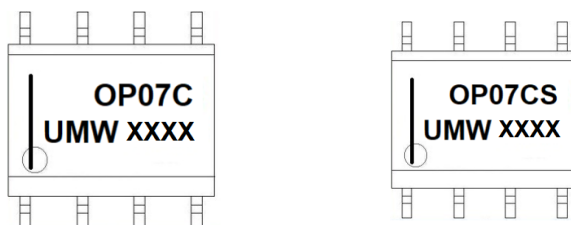
PACKAGE OUTLINE DIMENSIONS

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
theta	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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Precision Amplifiers](#) category:

Click to view products by [Youtai](#) manufacturer:

Other Similar products are found below :

[LM201AN](#) [NCS20166SN2T1G](#) [MCP6V52-E/MS](#) [ADA4692-4ARUZ-RL](#) [EL8176FSZ](#) [ISL28158FHZ-T7](#) [ISL28236FBZ](#) [ISL28236FBZ-T7](#)
[ISL28258FUZ](#) [ISL28258FUZ-T7](#) [ISL28276FBZ](#) [ISL28276IAZ](#) [ISL28276IAZ-T7](#) [ISL28288FUZ](#) [NCS21914DR2G](#) [NCS21914DTBR2G](#)
[COS2177MR/U](#) [COS8552SRA](#) [COSOP27SRA](#) [COS8554SRB](#) [COS2177MR/UA](#) [COS2388SRA](#) [COSOP27SRB](#) [COS2376SRA](#) [COS2277SR](#)
[COS4277TR](#) [COS8602SR](#) [COS8606](#) [COS4177SR](#) [COS2335SRC](#) [COS2387SRB](#) [COS8629](#) [COS2335SRB](#) [COS2376SRB](#) [COS2340SR](#)
[COS2387SRC](#) [COS2335SRA](#) [COS2387SRA](#) [COS2376SRC](#) [COS277SR](#) [COSOP27SRC](#) [OPA2177M/TR](#) [HG376M5/TR](#) [RS8654XP](#)
[SLA333](#) [OPA2335](#) [LTC6362IMS8#TRPBF](#) [COS8552SRC](#) [COS8554TRB](#) [COS4277SR](#)