

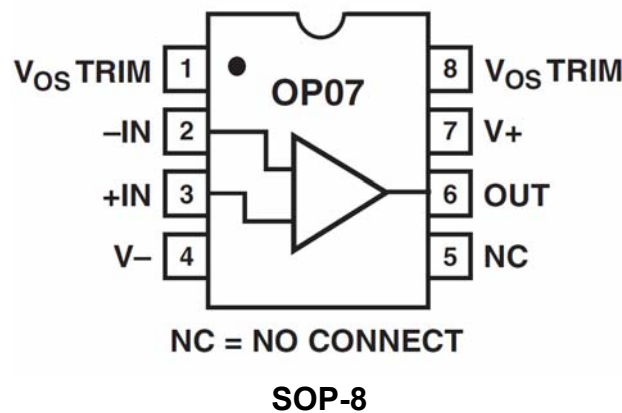
1.Description

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.

2.Features

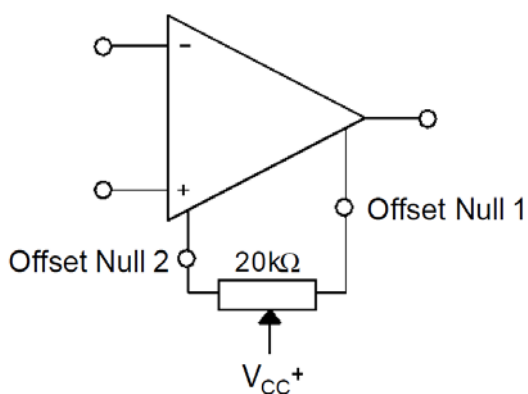
- Maximum offset voltage 150uV MAX
- Low offset current $i_{io}=1.3nA$ typ
- The working voltage range is $\pm 3V$ to $\pm 20V$

3.Pin information

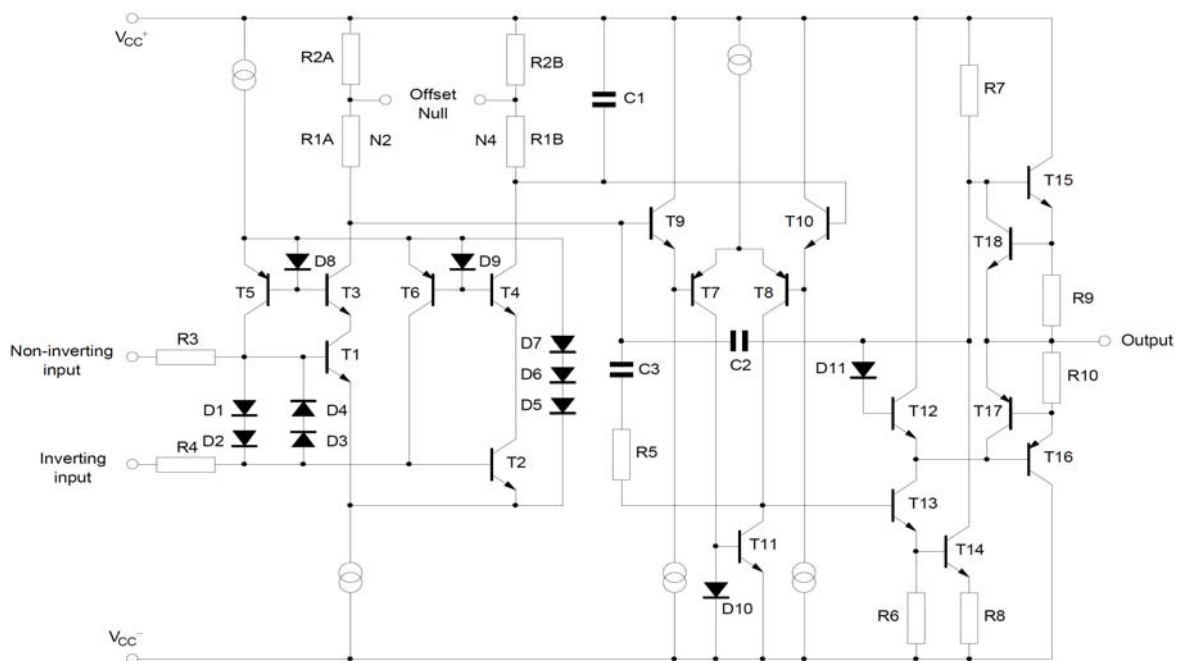




4. Input offset zeroing circuit



5. Block graph





6.Limit parameter

Parameter Name	Symbol	Numerical Value	Unit
Power supply voltage	V_{CC}	± 20	V
input voltage	V_i	± 18	V
Input differential voltage	V_{id}	± 30	V
Working temperature	T_{OPR}	-10 to +85	°C
storage temperature	T_{STG}	-40 to +150	°C



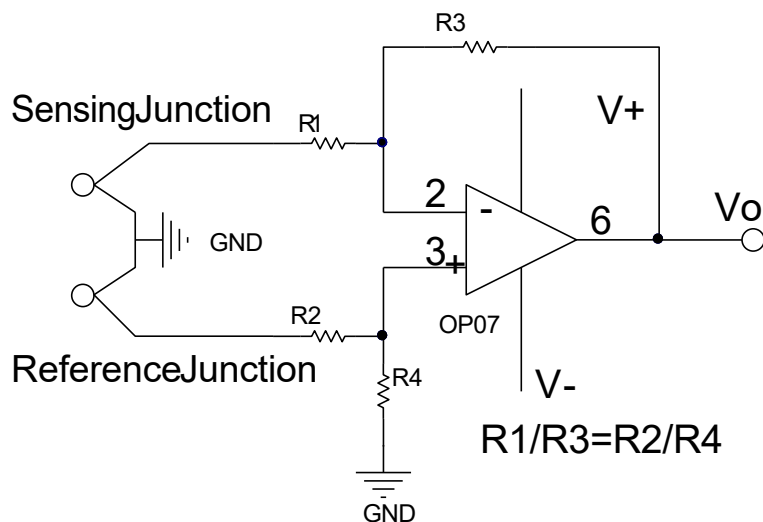
7. Electrical characteristics

($V_{CC}=15V$, $T_{amp}=25^{\circ}C$ shall be specified separately)

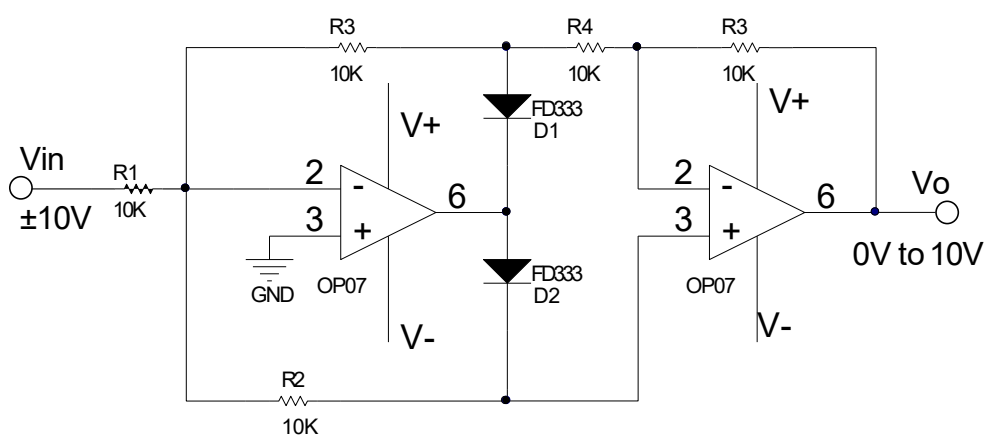
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Offset Voltage	V_{OS}				150	μV
		$0^{\circ}C < T_{amb} < 70^{\circ}C$			250	μV
Offset Temperature Drift	dV_{OS}/dT				1.8	$\mu V/^{\circ}C$
Input Offset Current	I_{OS}				8	nA
Input Bias Current	I_b				28	nA
Input Common- Mode Voltage	V_{cm}	$0^{\circ}C < T_{amb} < 70^{\circ}C$	± 13	± 13.5		V
Common Mode Rejection Ratio	CMRR		100			dB
Power Supply Rejection Ratio	SVR		90			dB
Large Signal Voltage Gain	A_{vd}	$V_{CC}=\pm 15V$, $R_L=2k\Omega$, $V_O=\pm 10V$	100			V/mV
Peak Output	V_{opp}	$R_L=10k\Omega$	± 12			V
		$R_L=2k\Omega$	± 11.5			V
Gain Band Width	GBP	$R_L=2k\Omega$, $C_L=100pF$, $f=100KHz$		0.5		MHz
Power Supply Current (Noload)	I_{CC}	$I_{OUT}=0A$		3.8	6	mA
		$0^{\circ}C < T_{amb} < 70^{\circ}C$			7	mA
		$V_{CC}=\pm 3V$		1	3	mA



8. Typical application diagram



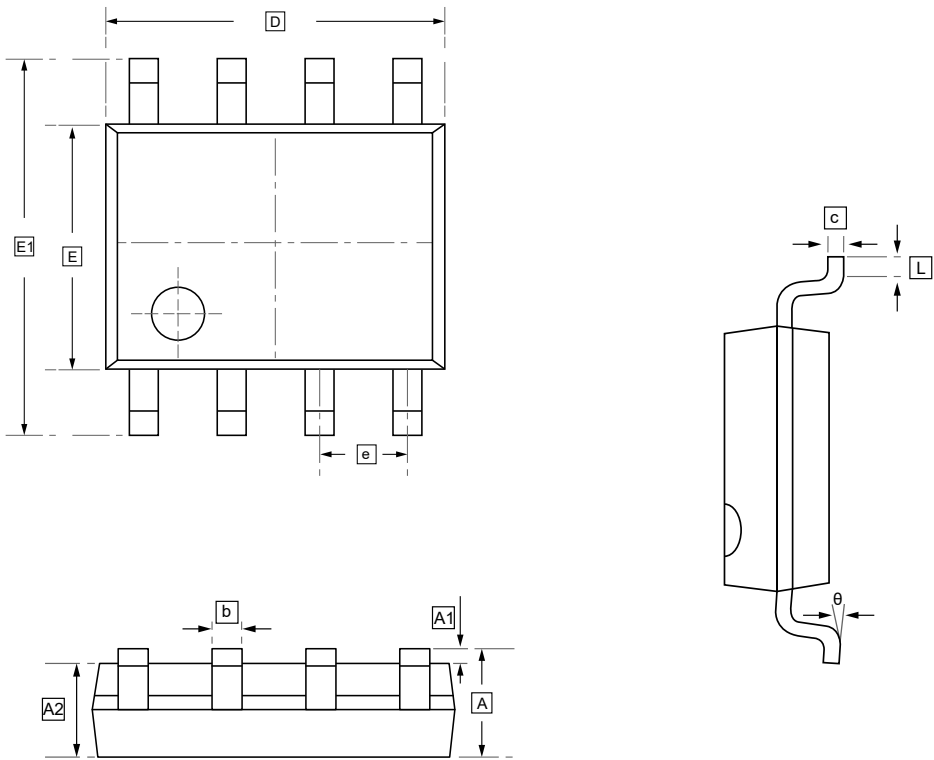
High stability thermocouple amplification



Precision absolute value circuit



9.SOP-8 Package Outline Dimensions

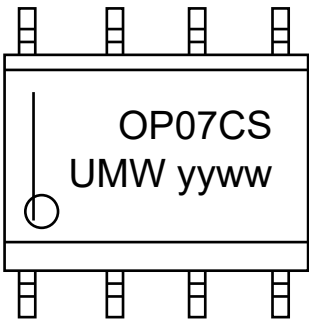
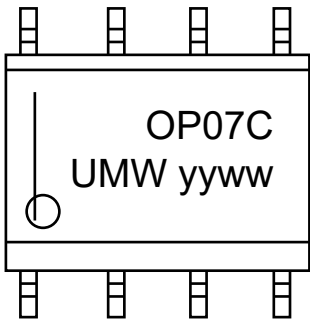


DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	b	c	D	E	E1	e	L	θ
Min	1.350	0.000	1.350	0.330	0.170	4.700	3.800	5.800	1.270	0.400	0°
Max	1.750	0.100	1.550	0.510	0.250	5.100	4.000	6.200	BSC	1.270	8°



10.Ordering information



yy: Year Code
ww: Week Code

Order Code	Package	Base QTY	Delivery Mode
UMW OP07CDR	SOP-8	2500	Tape and reel
UMW OP07CSZ	SOP-8	2500	Tape and reel



11.Disclaimer

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