芯伯乐®
XINBOLE

Product Specification

XBLW OP07C

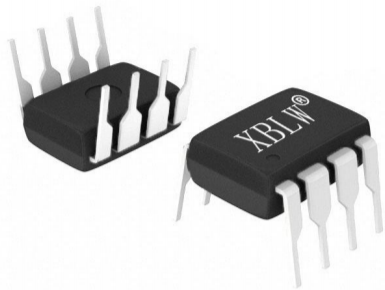
Single-Channel Precision Operational Amplifier

WEB | www.xinboleic.com



Descriptions

The OP07C is a high precision operational amplifier with a maximum offset voltage control of 150uV. Gain up to 200V/mV. Therefore, OP07C is particularly suitable for instrumentation and other aspects.
The OP07C has a common mode rejection ratio (CMRR) of more than 100dB and maintains excellent linearity and gain precision in high closed-loop gain circuits.



DIP-8



SOP-8

Feature

- Max offset Voltage: 150uV （max）
- Low Offset Current:I_{io}= 1.3nA typ.
- Supply Power Range:±2.5V~±22V
- Low noise

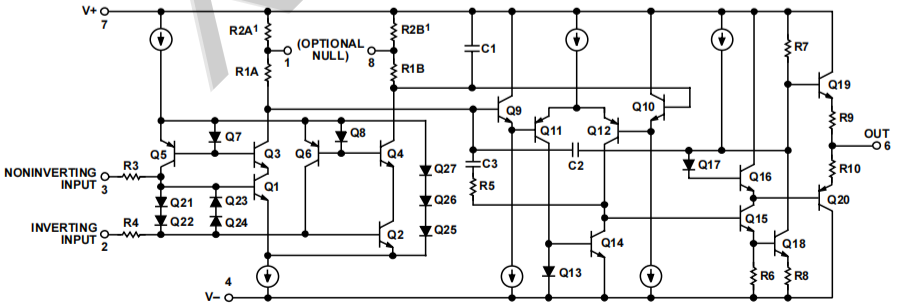
Applications

- Analog input module
- Battery test
- Lab and field instrumentation
- Temperature transmitter
- Merchant network & server PSU

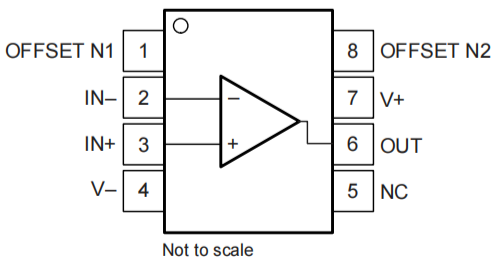
Ordering Information

Product Model	Package Type	Marking	Packing	Packing Qty
XBLW OP07CN	DIP-8	OP07CN	Tube	2000pcs/Box
XBLW OP07CDTR	SOP-8	OP07C	Tape	2500pcs/Reel

Functional Block Diagram



Pins Diagram



Not to scale

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Extreme Ratings

Tamb=25℃,unless otherwise specified.

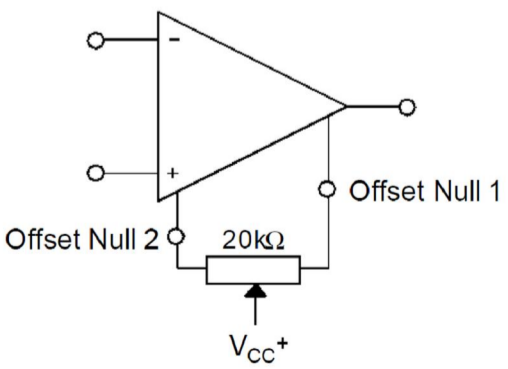
Parameter	Symbol	Value	Unit
Supply Voltage	Vcc	±22	V
Input Voltage	Vi	±22	V
Input differential voltage	Vid	±30	V
Operating Temperature	T_{OPR}	-40~+85	℃
Storage Temperature	T_{STG}	-60~+150	℃

Electrical Characteristics

Tamb = 25℃; VS = ±15 V, unless otherwise specified.

Symbol	Parameter	Min.	Typ.	Max.	Unit
Vio	Input Offset Voltage			150	uV
Dvio	Input Offset Voltage Drift			1.8	uV/℃
Iio	Input Offset Current			6	nA
Iib	Input Bias Current			±5	nA
Vicm	Input Common-Mode Voltage	±13	±13.5		V
Cmrr	Common-Mode Rejection Ratio	100			dB
Psrr	Supply Power Rejection Ratio	90			dB
Av	Large Signal Voltage Gain VCC = ±15V, RL= 2kW, VO= ±10V,	100			V/mV
Vopp	Output Peak R_L = 10k R_L = 2k	 ±13.5 ±13			V
GBP	Gain Bandwidth Product R_L = 2k, CL= 100pF, f = 100kHz)		0.5		MHz
Icc	Supply Power Current(No Load) 0 °C< Tamb <70°C VCC = ±3V		3.8 1	6 7 3	mA

Input Offset-Voltage Null Circuit

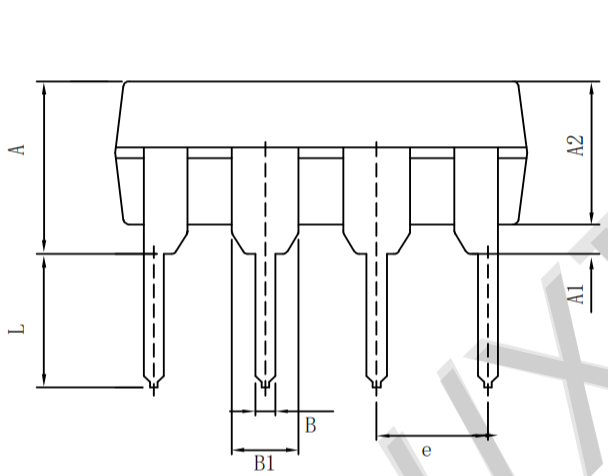


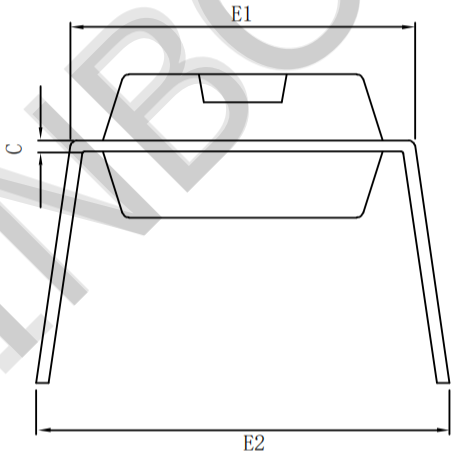
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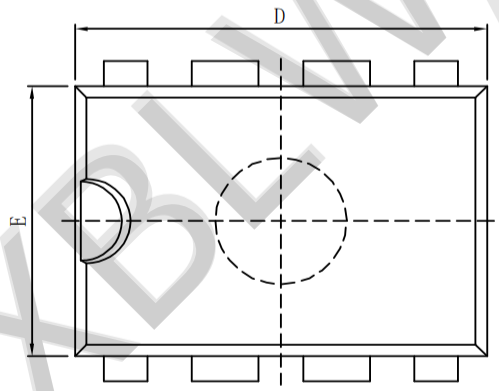
Package Information

- DIP-8

Size / Symbol	Dimensions In Millimeters		Size / Symbol	Dimensions In Inches	
	Min(mm)	Max(mm)		Min(in)	Max(in)
A	3.710	4.310	A	0.146	0.170
A1	0.510		A1	0.020	
A2	3.200	3.600	A2	0.126	0.142
B	0.380	0.570	B	0.015	0.022
B1	1.524(BSC)		B1	0.060(BSC)	
C	0.204	0.360	C	0.008	0.014
D	9.000	9.400	D	0.354	0.370
E	6.200	6.600	E	0.244	0.260
E1	7.320	7.920	E1	0.288	0.312
e	2.540(BSC)		e	0.100(BSC)	
L	3.000	3.600	L	0.118	0.142
E2	8.400	9.000	E2	0.331	0.354



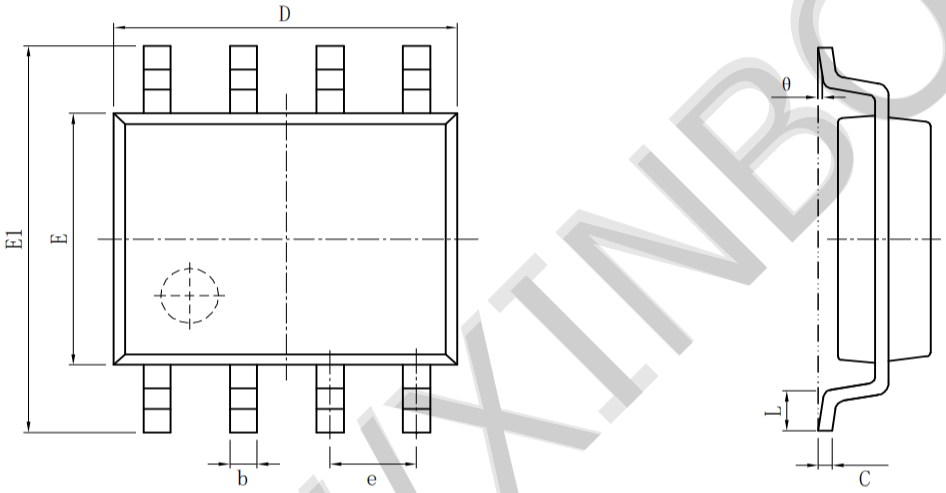


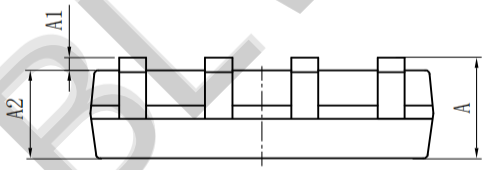


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- SOP-8

Size / Symbol	Dimensions In Millimeters		Size / Symbol	Dimensions In Inches	
	Min(mm)	Max(mm)		Min(in)	Max(in)
A	1.350	1.750	A	0.053	0.069
A1	0.100	0.250	A1	0.004	0.010
A2	1.350	1.550	A2	0.053	0.061
b	0.330	0.510	b	0.013	0.020
c	0.170	0.250	c	0.006	0.010
D	4.700	5.100	D	0.185	0.200
E	3.800	4.000	E	0.150	0.157
E1	5.800	6.200	E1	0.228	0.224
e	1.270(BSC)		e	0.050(BSC)	
L	0.400	1.270	L	0.016	0.050
θ	0°	8°	θ	0°	8°





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