



Product Specification

XBLW OP07C

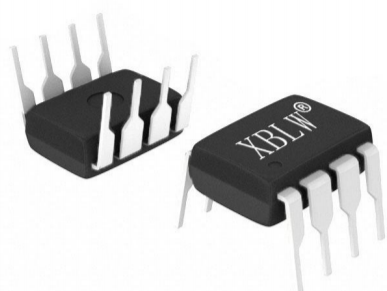
High-performance Low-noise Dual Operational Amplifier

WEB | www.xinboleic.com

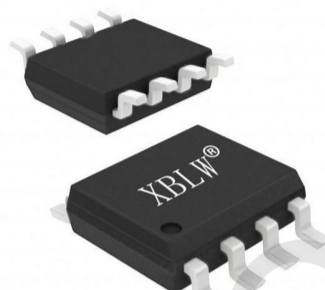


Descriptions

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: $\pm 2.5V \sim \pm 22V$
- Low noise

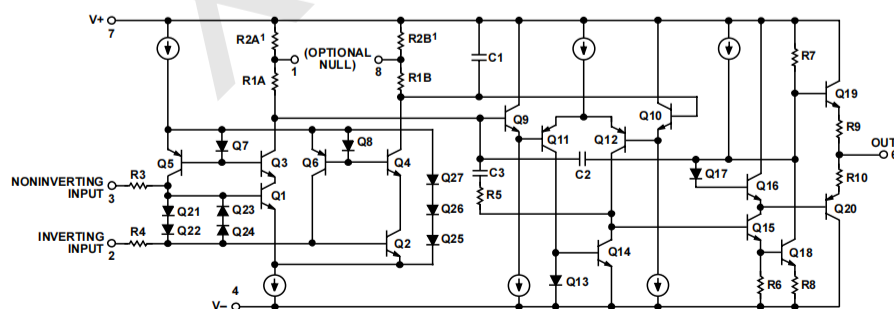
Applications

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

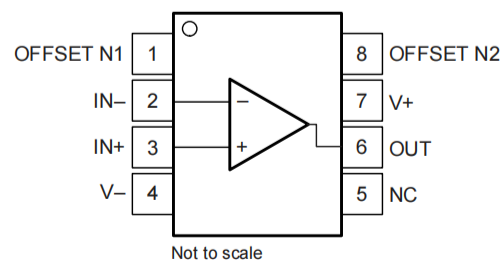
Ordering Information

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



Extreme Ratings

Tamb=25°C, unless otherwise specified.

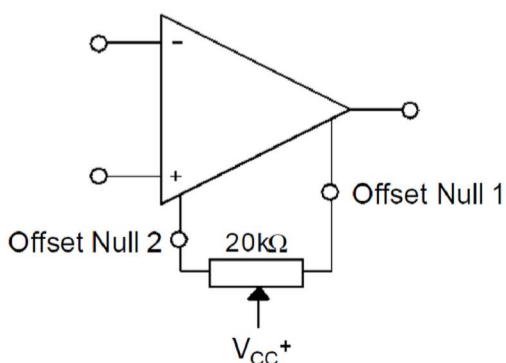
Parameter	Symbol	Value	Unit
Supply Voltage	V _{CC}	±22	V
Input Voltage	V _i	±22	V
Input differential voltage	V _{id}	±30	V
Operating Temperature	T _{OPR}	-40~+85	°C
Storage Temperature	T _{STG}	-60~+150	°C

Electrical Characteristics

Tamb = 25°C; V_S = ±15 V, unless otherwise specified.

Symbol	Parameter	Min.	Typ.	Max.	Unit
V _{io}	Input Offset Voltage			150	uV
D _{vio}	Input Offset Voltage Drift			1.8	uV/°C
I _{io}	Input Offset Current			6	nA
I _{ib}	Input Bias Current			±5	nA
V _{icm}	Input Common-Mode Voltage	±13	±13.5		V
C _{mrr}	Common-Mode Rejection Ratio	100			dB
P _{srr}	Supply Power Rejection Ratio	90			dB
A _v	Large Signal Voltage Gain V _{CC} = ±15V, R _L = 2kW, V _O = ±10V,	100			V/mV
V _{opp}	Output Peak R _L = 10k R _L = 2k	±13.5 ±13			V
GBP	Gain Bandwidth Product R _L = 2k, C _L = 100pF, f = 100kHz)		0.5		MHz
I _{cc}	Supply Power Current(No Load) 0 °C < Tamb < 70°C V _{CC} = ±3V		3.8 1	6 3	mA

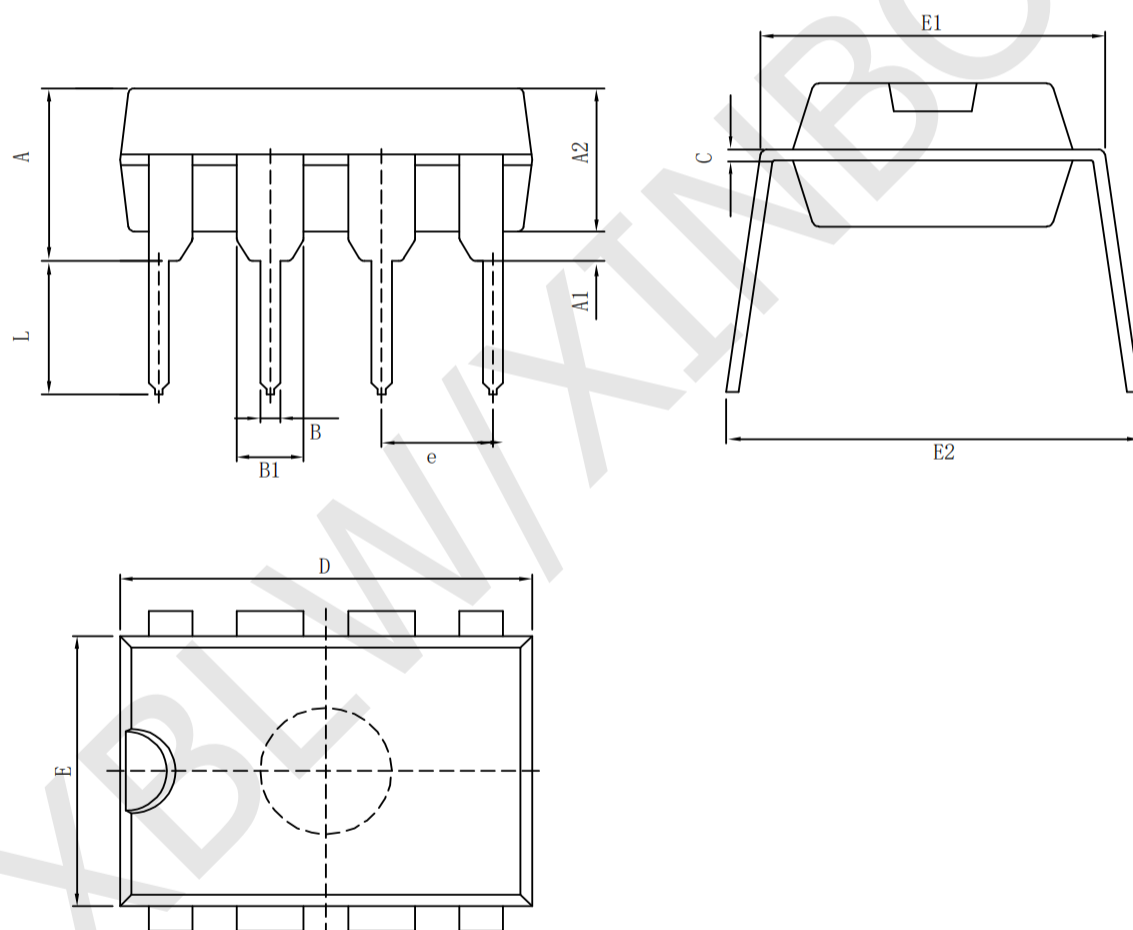
Input Offset-Voltage Null Circuit



Package Information

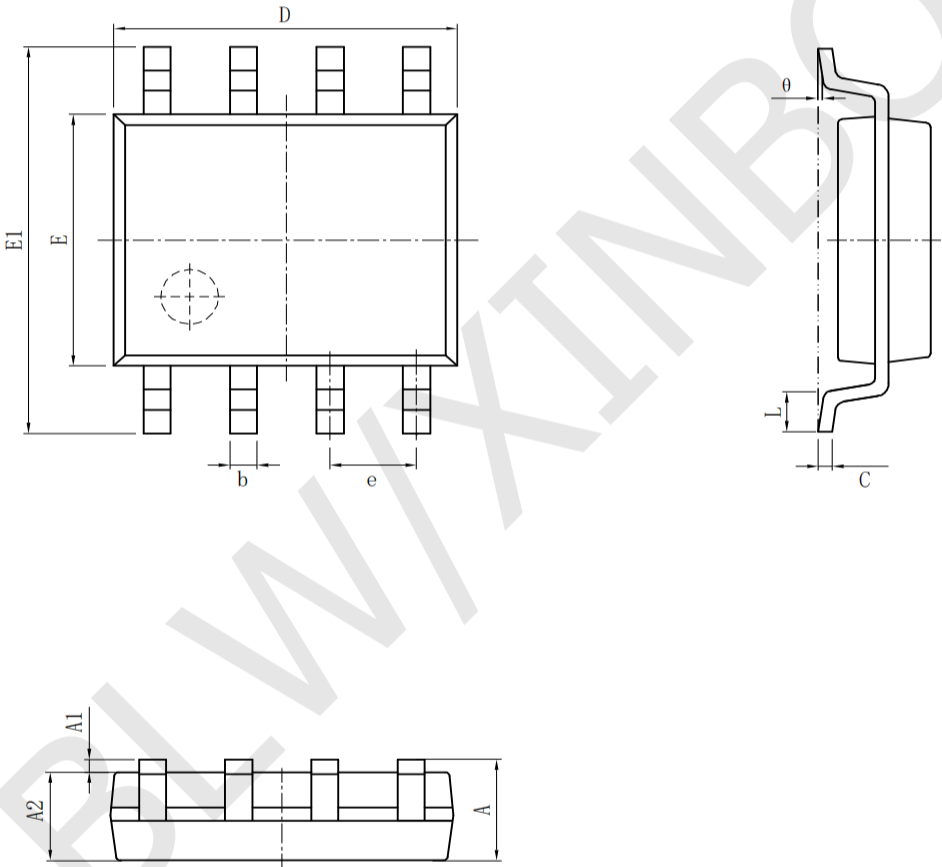
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Symbol	Size	Dimensions In Millimeters		Symbol	Size	Dimensions In Inches	
		Min (mm)	Max (mm)			Min (in)	Max (in)
A		3.710	4.310	A		0.146	0.170
A1		0.510		A1		0.020	
A2		3.200	3.600	A2		0.126	0.142
B		0.380	0.570	B		0.015	0.022
B1		1.524 (BSC)		B1		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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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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