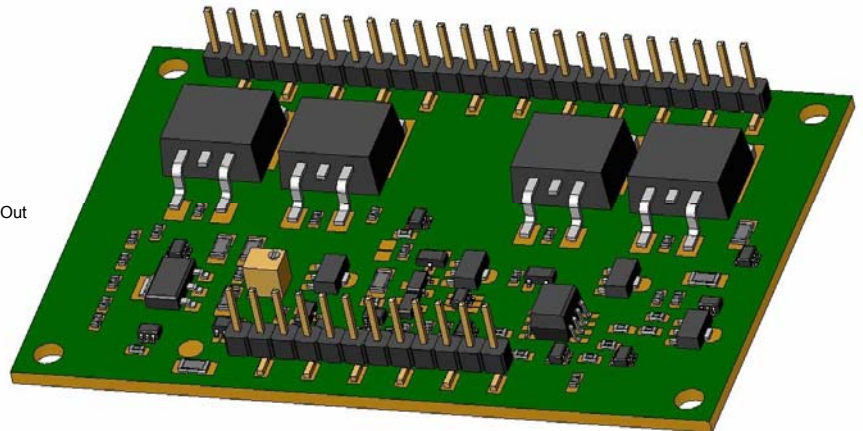
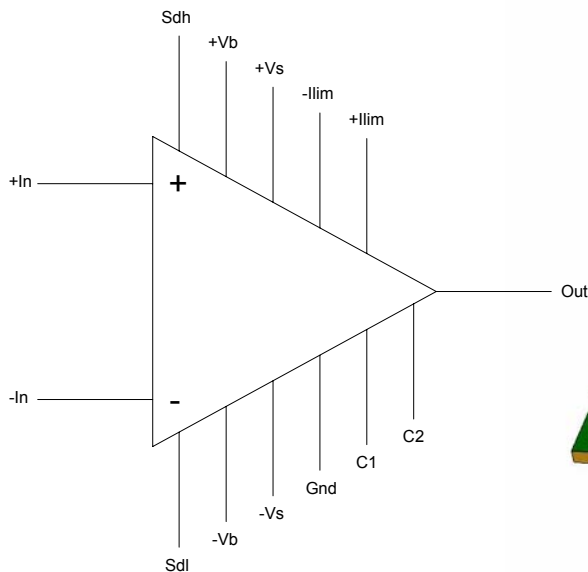


## POWER OPERATIONAL AMPLIFIER



### FEATURES:

- 100V OPERATION
- 30A CONTINUOUS CURRENT
- 150V/ $\mu$ s SLEW RATE
- JFET INPUTS
- EXTERNAL SHUTDOWN WITH LOGIC LOW OR LOGIC HIGH OPERATION
- BOOST INPUTS FOR MORE EFFICIENT POWER USAGE
- ADJUSTABLE CURRENT LIMIT
- COPPER-BASE INSULATED METAL SUBSTRATE FOR HIGH THERMAL TRANSFER
- FLEXIBLE HEATSINK CONFIGURATIONS
- LOW QUIESCENT CURRENT

### APPLICATIONS:

- LINEAR MOTOR OPERATION
- PIEZO/ULTRASOUND TRANSDUCER DRIVING
- AUDIO
- MAGNETIC FIELD EXCITATION

**TECHNICAL DATA**  
**DATA SHEET SCP-6122, PRELIMINARY RELEASE**

**ABSOLUTE MAXIMUM RATINGS**

T<sub>c</sub>=25 °C UNLESS OTHERWISE NOTED

RATING	MAXIMUM
SUPPLY VOLTAGE, +Vs TO -Vs	100V
BOOST VOLTAGE	Vs ± 17V
CONTINUOUS OUTPUT CURRENT	30A (SEE SOA CURVE)
INTERNAL POWER DISSIPATION	200W
COMMON MODE INPUT VOLTAGE	+Vb TO -Vb
DIFFERENTIAL MODE INPUT VOLTAGE	±25V
JUNCTION TEMPERATURE	175 <sup>0</sup> C
STORAGE TEMPERATURE	-40 <sup>0</sup> C TO 125 <sup>0</sup> C
OPERATING CASE TEMPERATURE	-40 <sup>0</sup> C TO 100 <sup>0</sup> C

**ELECTRICAL CHARACTERISTICS**

T<sub>c</sub>=25 °C UNLESS OTHERWISE NOTED

C = 100pF UNLESS OTHERWISE NOTED

RAILS ARE ± 45V UNLESS OTHERWISE NOTED

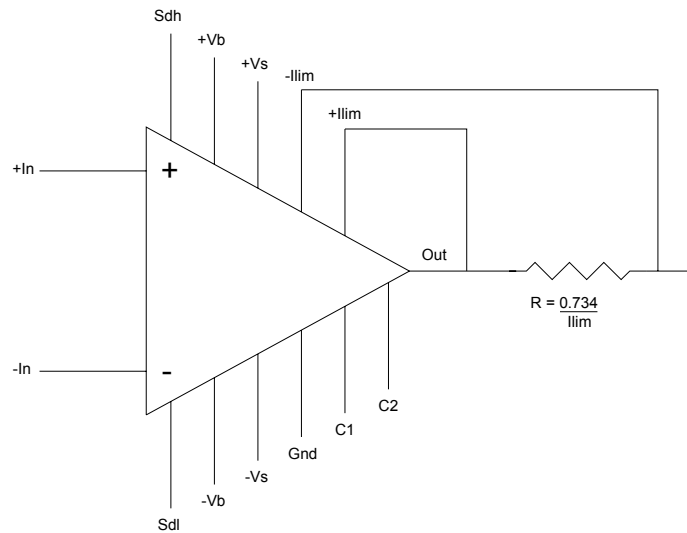
CHARACTERISTIC	SYM	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT OFFSET VOLTAGE	Vio			0.5		mV
INPUT OFFSET CURRENT	Iio			2		pA
INPUT BIAS CURRENT	Iib			10		pA
COMMON MODE REJECTION RATIO	CMRR		102			dB
GAIN BANDWIDTH PRODUCT	GBW	C = 33pF		11.5		MHz
PHASE MARGIN	φm		45			DEG
VOLTAGE SWING, NOT BOOSTED	Vom		Vs -8.5V			
VOLTAGE SWING, BOOSTED	Vomb		Vs -1.7V			
SLEW RATE	SR	C = 33pF	120	150		V/μs
POWER BANDWIDTH	PBW			600		kHz
QUIESCENT CURRENT	Icc			45		mA
QUIESCENT CURRENT, BOOST PINS	Iccb			40		mA

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**TECHNICAL DATA**  
**DATA SHEET SCP-6122, PRELIMINARY RELEASE**

**CURRENT LIMITING**

If current limiting is not used, both current limit pins, +Ilim and -Ilim, must be connected to the output. To limit current, place a resistor of the value  $0.734/I_{lim}$  in series with the output as shown below.



**COMPENSATION**

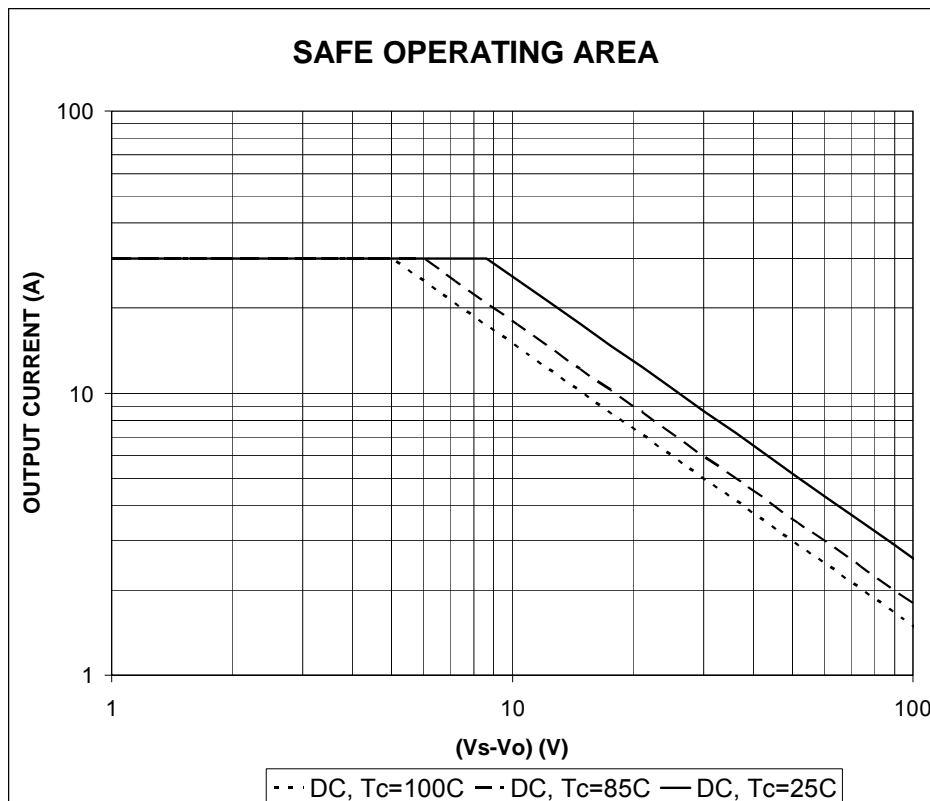
Connect a 100V, NPO capacitor between C1 and C2. For stability, the minimum capacitor value is generally 33pF.

**TECHNICAL DATA**  
**DATA SHEET SCP-6122, PRELIMINARY RELEASE**

**PINOUT**

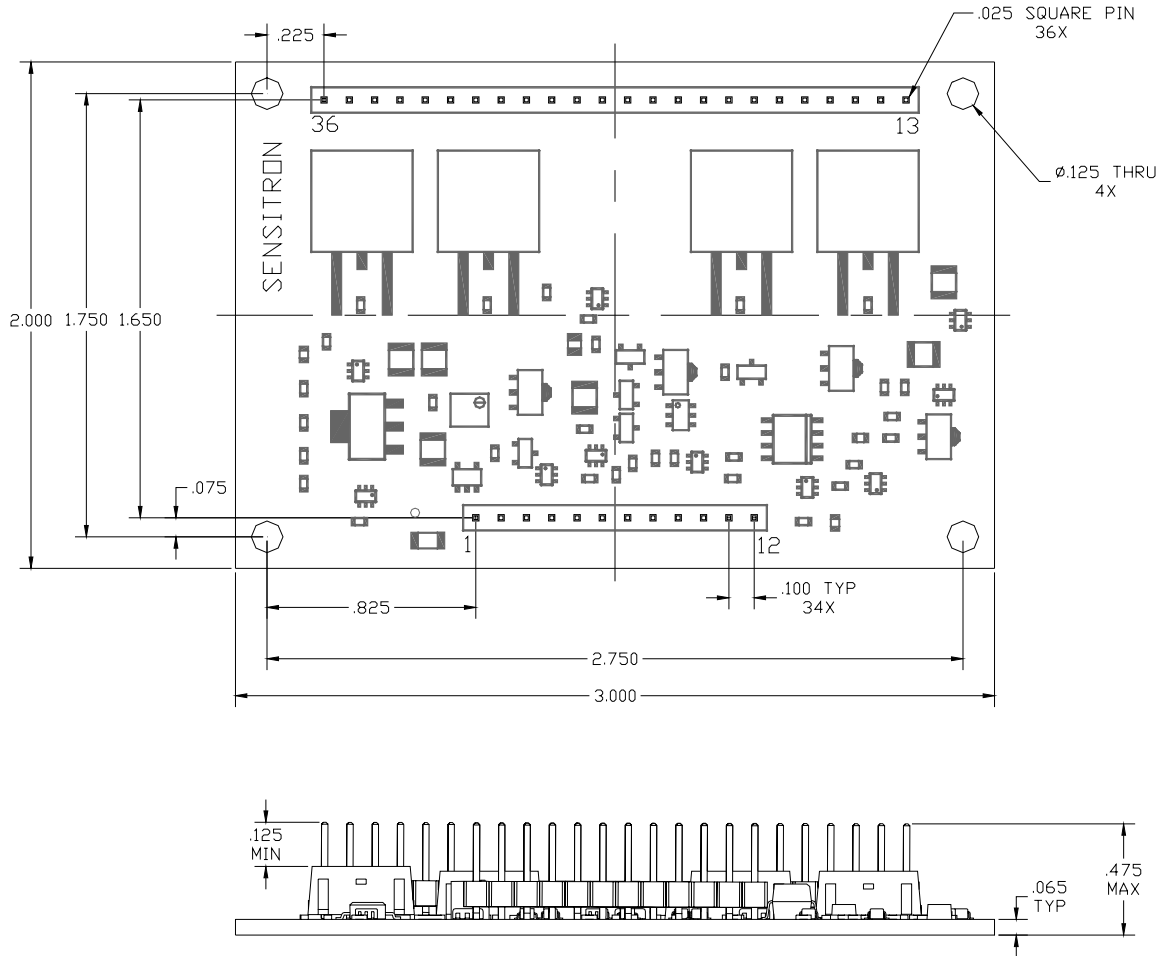
PIN	FUNCTION
1	BASE
2	CC2
3	CC1
4	-ILM
5	+ILM
6	-IN
7	+IN
8	-VB
9	+VB
10	GND
11	SD HIGH
12	SD LOW
13-18	-VS
19-30	OUT
31-36	+VS

**SAFE OPERATING AREA**



**TECHNICAL DATA**  
**DATA SHEET SCP-6122, PRELIMINARY RELEASE**

**DIMENSIONS**



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