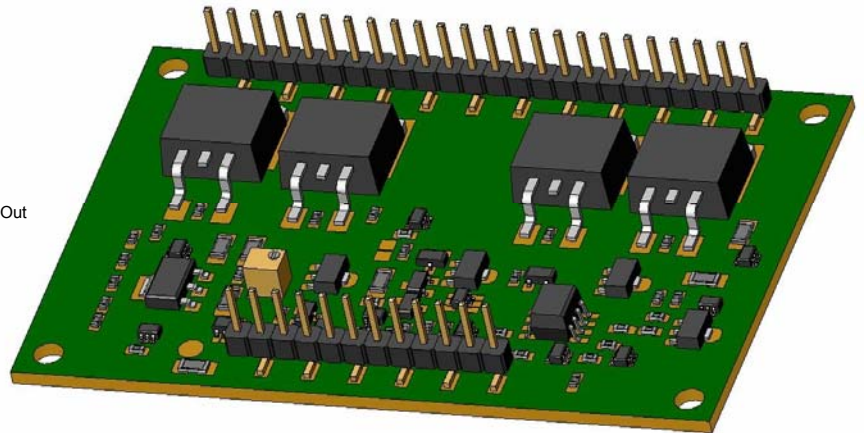
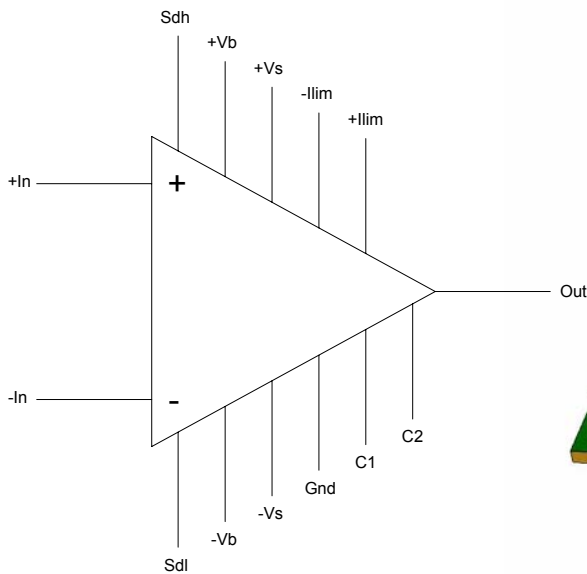


POWER OPERATIONAL AMPLIFIER



FEATURES:

- 100V OPERATION
- 30A CONTINUOUS CURRENT
- 150V/ μ 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_c=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 ⁰ C
STORAGE TEMPERATURE	-40 ⁰ C TO 125 ⁰ C
OPERATING CASE TEMPERATURE	-40 ⁰ C TO 100 ⁰ C

ELECTRICAL CHARACTERISTICS

T_c=25 °C UNLESS OTHERWISE NOTED

C = 100pF UNLESS OTHERWISE NOTED

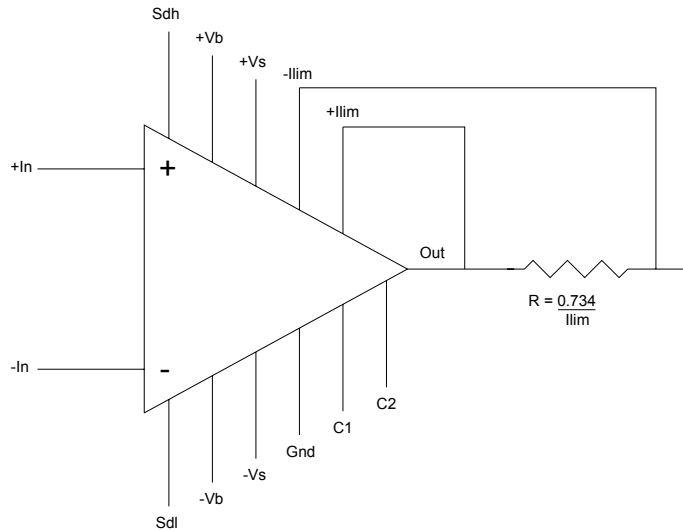
RAILS ARE ± 45V UNLESS OTHERWISE NOTED

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

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

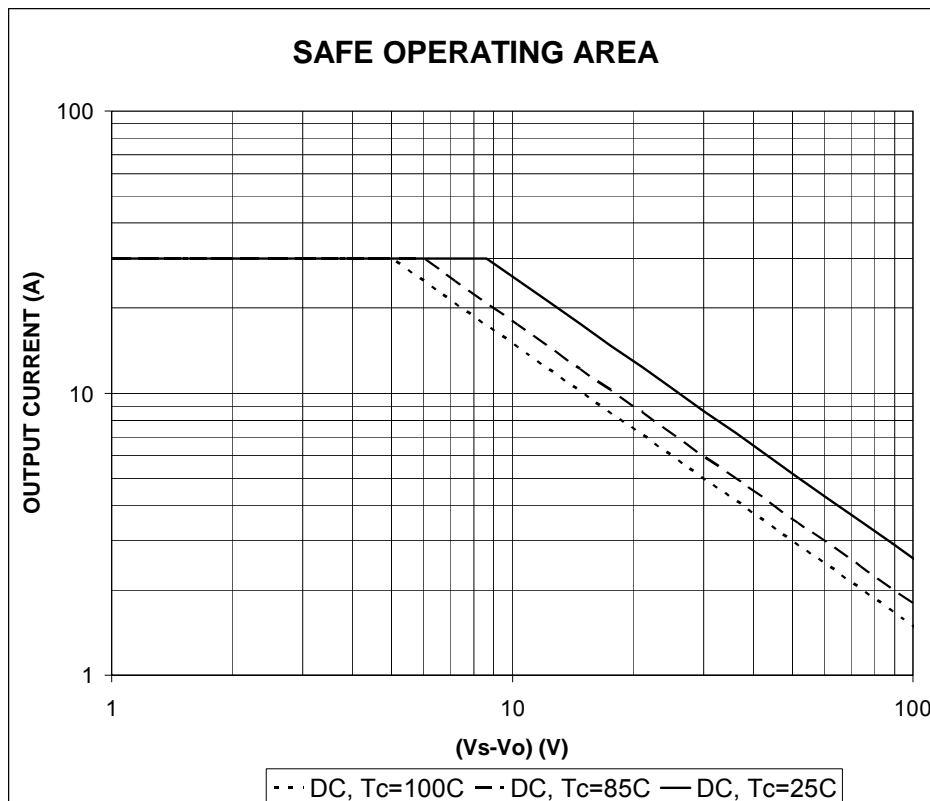
Connect a 100V, NPO capacitor between C1 and C2. For stability, the minimum capacitor value is generally 33pF.

TECHNICAL DATA
DATA SHEET SCP-6122, PRELIMINARY RELEASE

PINOUT

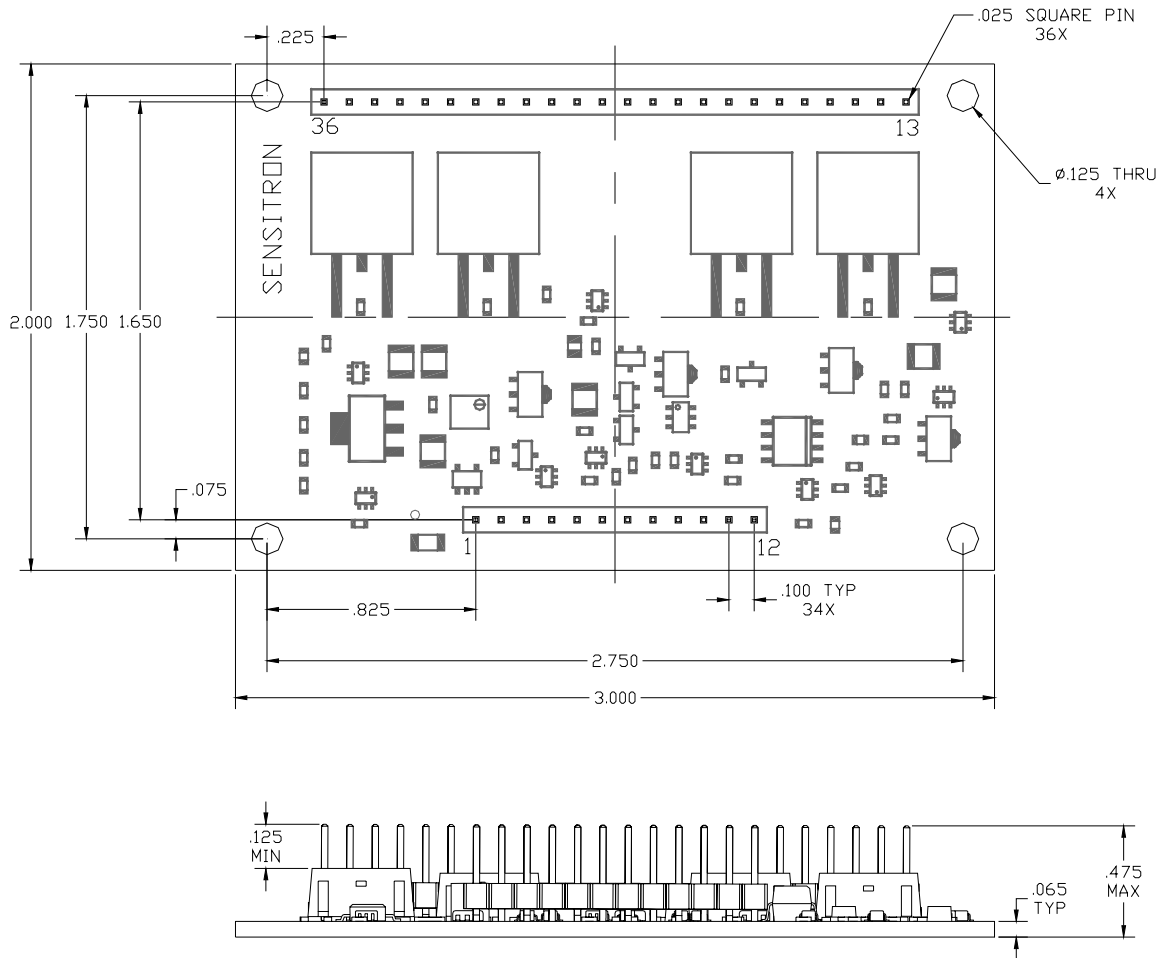
PIN	FUNCTION
1	BASE
2	CC2
3	CC1
4	-ILM
5	+ILM
6	-IN
7	+IN
8	-VB
9	+VB
10	GND
11	SD HIGH
12	SD LOW
13-18	-VS
19-30	OUT
31-36	+VS

SAFE OPERATING AREA



TECHNICAL DATA
DATA SHEET SCP-6122, PRELIMINARY RELEASE

DIMENSIONS



DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.