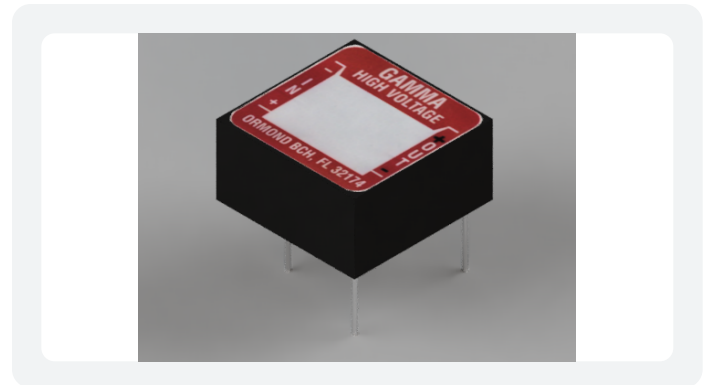


SM SERIES

PCB-MOUNT DC/DC HIGH VOLTAGE CONVERTERS

Compact, fully encapsulated DC/DC high voltage converters for PCB mounting. Output voltage is proportional to the applied input, while the floating output allows either positive or negative polarity connection.



250 V-3 kV

OUTPUT RANGE

0-12 VDC

INPUT RANGE

0.98 in³

PACKAGE VOLUME

>3.5 kV

INPUT/OUTPUT ISOLATION

KEY CAPABILITIES

- Low-cost, high-reliability construction
- Output proportional to input voltage
- Floating input and output
- Short-circuit and reverse-polarity protection
- Fully encapsulated package
- Four-pin PCB mounting

STANDARD MODEL GUIDE

Model	Output voltage	Output current
SM-2.5	0-250 VDC	2 mA
SM-5	0-500 VDC	1 mA
SM-10	0-1000 VDC	250 μ A
SM-15	0-1500 VDC	200 μ A
SM-25	0-2500 VDC	200 μ A
SM-30	0-3000 VDC	100 μ A

Select the model for the required output voltage and current. Add -RC to the model number when the RoHS-compliant version is required.

TYPICAL APPLICATIONS

- Inkjet printers
- Photodetectors
- Gas chromatography
- CRT focus and bias
- Geiger tubes
- Ionization chambers
- Photomultiplier tubes



SM SERIES

PCB-MOUNT DC/DC HIGH VOLTAGE CONVERTERS

250 V-3 kV | UP TO 0.5 W

HIGH VOLTAGE SOLUTIONS

SM SERIES | 02

ELECTRICAL CHARACTERISTICS

Input voltage	0-12 VDC
Input current	85 mA nominal at full load
Output voltage	Proportional to input voltage; approximately linear from 10% to maximum output
Output current	See model guide
Load regulation	5% from half load to full load
Ripple	0.5% peak-to-peak typical
Isolation strength	>3500 VDC input to output

INTEGRATION AND CONTROL

- Apply 0-12 VDC across the IN positive and negative pins
- Connect the load across the floating OUT positive and negative pins
- Output voltage follows the input voltage from approximately 10% to maximum output
- Add an external output capacitor when lower ripple is required
- Maintain appropriate high voltage spacing and isolation on the PCB

PHYSICAL AND ENVIRONMENTAL

Dimensions	1.25 x 1.25 x 0.63 in maximum
Volume	0.98 cubic inch
Weight	Approximately 1.5 oz
Packaging	Solid encapsulation
Terminations	Four 0.040 in diameter PCB pins; use approximately 0.045 in mating holes
Temperature range	-20 to +70 deg C

CONFIGURATION NOTES

- Higher-power versions available in the same package size
- Custom output configurations available
- RoHS-compliant version: add -RC suffix

MODEL NUMBER FORMAT

SM-[Voltage Code][-RC]

EXAMPLE

SM-10-RC 1 kV | 250 uA | RoHS compliant

-RC = RoHS-compliant version

HIGH VOLTAGE SOLUTIONS

©2026 Gamma High Voltage Research | SM Series Data Sheet | Rev A

Get in touch

+1 386-677-7070

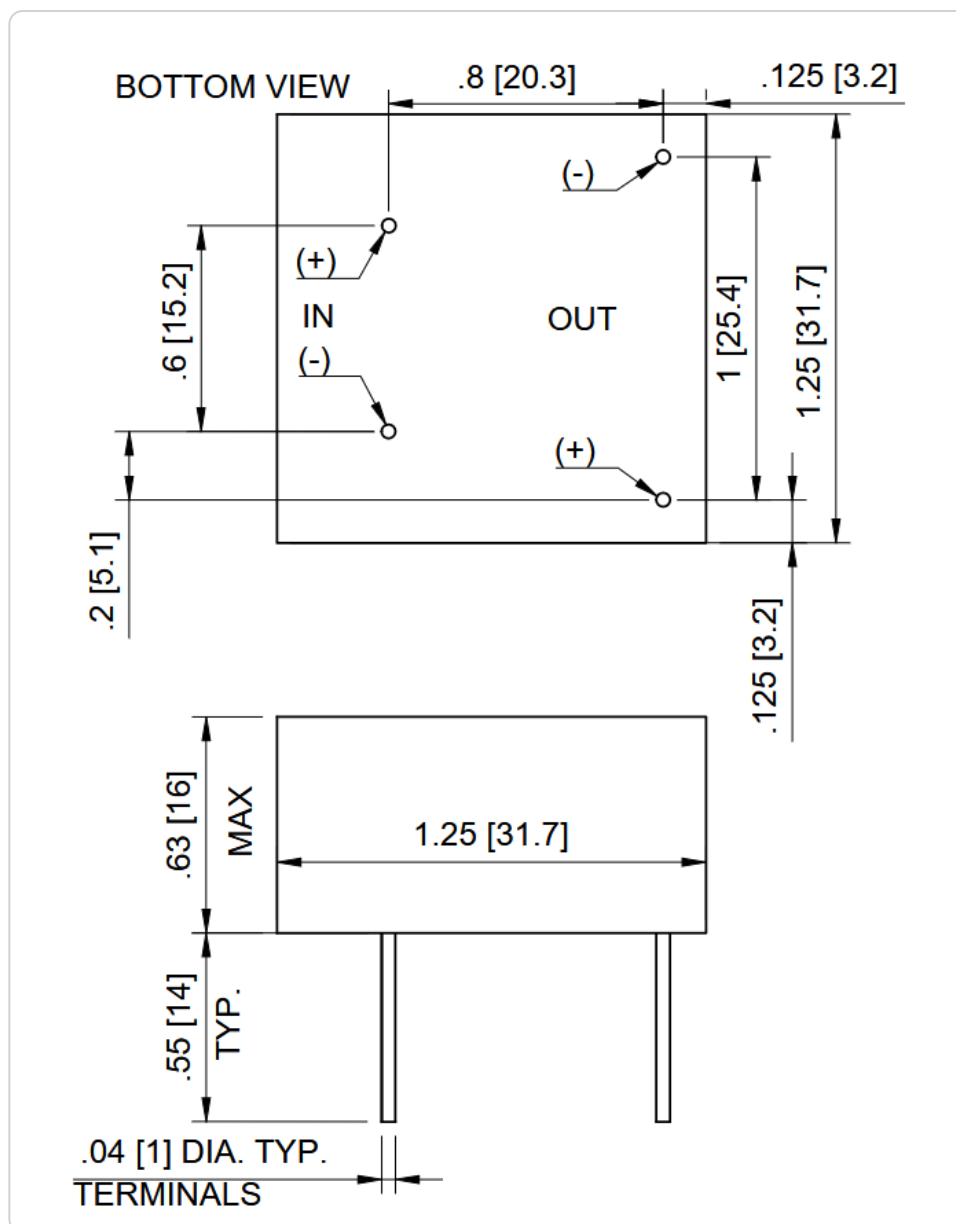
gammahv.com

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PCB MOUNTING AND PIN ARRANGEMENT

Mechanical dimensions and the four-pin PCB connection arrangement are shown below. Dimensions are in inches with millimeters in brackets.

BOTTOM AND SIDE VIEWS



PCB INTEGRATION NOTES

- Four 0.040 in diameter pins provide separate floating input and output connections.
- Use approximately 0.045 in PCB mating holes and maintain suitable high voltage clearance around the output pins.
- Package height is 0.63 in maximum; terminal length is 0.55 in typical.