A7526

1 Ch 2600 V/500 µA High Efficiency HV Power Supply Module - PCB Mount

Features

- High efficiency
- 2600 V/500 µA output ranges
- Available with positive or negative polarity
- Compact package: 29x54x16 mm^3 (WxLxH)

Description

The **A7526** is a high efficiency, low noise single channel High Voltage DC/DC converters in a PCB mount form factor. It provides a programmable and monitorable output voltage ranging from **0** to **2600 V**, when supplied with a **+12 V** input. It is available with either positive or negative output voltage. The output voltage is regulated by providing a **0** to **+2.4 V** external voltage (Vset). The maximum output current is 500µA, regulated by providing **0** to **+2 V** external voltage (Iset). The board is provided with an over-current protection: if a current larger than the Iout maximum value is drawn, the module is not being damaged.

Thanks to its excellent stability and special design, **A7526** power supply is engineered to work in **harsh environment and under severe temperature variations**.

The module is engineered on a **FR4 PCB**, coated and housed in **DC01 steel box**. CAD Altium library components and 3D step models are available on request.

Safety Features Include:

- Overcurrent detection if the channel attempts to draw a current larger than Iset, the output voltage is varied to keep the current below Iset limit. The channel behaves like a current generator.

Technical Specifications

Packaging

Material: DC01; dimension: W=29 mm ; L=54 mm ; H=16 mm

Number of Channels

1

Maximum Output Current (Iout)

500µA @ ±2600 V

Output Voltage (Vout)

0 ÷ ±2600 V

Contact pins

Male strip header; 2.54mm step; phosphor bronze; UL94V0 insulator

Protection

Over current, short circuit, sparks and humidity

Operating temperature

-55° C ÷ +80° C

Storage temperature

-55° C ÷ +85° C

Output Ripple (Full Load)

Typical 5mVpp, Maximum 10mVpp

Efficiency

>55% @ Vout 2500 V (-20° C ÷ +70° C)

Vout / Temperature coefficient

<±0.2% (-20° C ÷ +70° C)

DeltaVout/Vout (for ±5% Vin variations)

<1.5 X 10-3 @ full scale

Vout vs. Vset Integral Non Linearity

<±0.2% (-20° C ÷ +70° C)

Vmon vs. Vout Integral Non Linearity

<±0.2% (-20° C ÷ +70° C)

Voltage Supply (Vin)

+12 V ± 10%

Enable

If Enable > 3.5 V Channel active
If Enable < 1 V Channel disabled

Vset Input (positive analog command)

0 ÷ +2.4V Important!: Vset must not exceed 2.4V (Vout is not limited)

Vmon Output (positive analog command)

0 ÷ +2.4V

Iset input (positive analog command)

0 ÷ +2.0 V

Imon Output (positive analog command)

0 ÷ +2.0 V

Status OVC bit

0 ÷ 5 V (low = OVC)

Electromagnetic compatibility

Weak emission of electromagnetic impulse and RF; one-piece metal shielding with several ground connections

Power Requirement

< 2.5W;
@ 2600 V / 500µA (Rload ≈ 6 MΩ)

Thermal stability (DeltaVout/Vout)

< 50 ppm / °C (@ Vout > 300 V)

Ordering Options

Code	Description	
WA7526NXAAAA	A7526N - -2.6kV 500µA High Efficiency HV Power Supply Module	RoHS
WA7526PXAAAA	A7526P - +2.6kV 500µA High Efficiency HV Power Supply Module	RoHS

Accessories

DT75XX

HV Carrier Board for A750x PCB Modules

Related Products

A7526DB

1 Ch 2.6 kV/500 µA Digital Controlled Power Supply Module

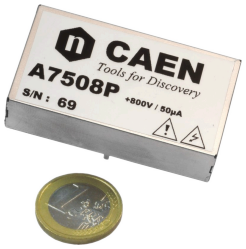
A7501

1 Ch 2100 V/100 µA High Efficiency HV Power Supply Module

A7504C

1 Ch 4 kV/100 µA High Efficiency HV Power Supply Module

A7508



1 Ch 800 V/50 µA High Efficiency HV Power Supply Module (5V in)

A7511

1 Ch 1100 V/1000 µA High Efficiency HV Power Supply Module

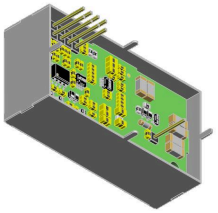
A7505

1 Ch 1600 V/500 µA High Efficiency HV Power Supply Module

A7502

1 Ch 2100 V/100 µA High Efficiency HV Power Supply Module (5V in)

Gallery



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