

Features

12PIN SIP Package

UL94V-0 Package Material

Operating Temperature:-40°C TO +85°C

Efficiency up to 92%

Non isolated, no need for heatsinks

Short circuit protection

**Input Specifications**

Input Voltage Range :8~36Vdc

Input current no load :2mA TYP

Remote Control:

Turn On : Ctrl pin open or pulled high (TTL 4.5-14VDC)

Turn Off : Ctrl pin pulled low to GND(0-0.8VDC)

Output Specifications

Output Voltage :5Vdc

Output Voltage Accuracy :±3% @Vout=4.85~5.15Vdc @Vin=8~36Vdc

Output Current :1000mA

Efficiency :92% TYP @Min Vin
:84% TYP @Max Vin

Ripple / Noise :100mVp-p MAX @20MHz Bandwidth

Short Circuit Protection :Continuous @auto-recovery

Line Regulation :±1.0% MAX @ at Full Load

Load Regulation :±1.0% MAX @10% to 100% load

Capacitive load :680uF MAX

General Specifications

Operating Temperature Range :-40°C ~ +85°C (with derating) Output load derate 2.86% per degree Celsius above 71°C as refer to temperature derating graph.

Storage Temperature :-55°C ~ +125°C

Switching Frequency :440KHz TYP

Humidity :95% MAX

Cooling :Natural Convection @100LFM

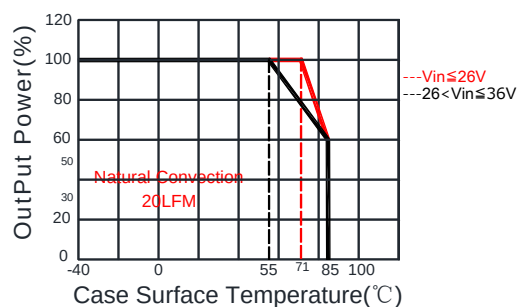
MTBF :>5000x10³ Hours MIL-HDBK-217F@25°C,Ground Benign.

Weight : 9.5g TYP

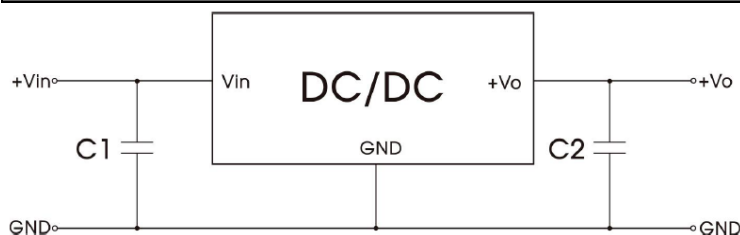
Conducted Emission :EN55022 Class A

Radiated Emission :EN55022 Class A

Temperature Derating Graph



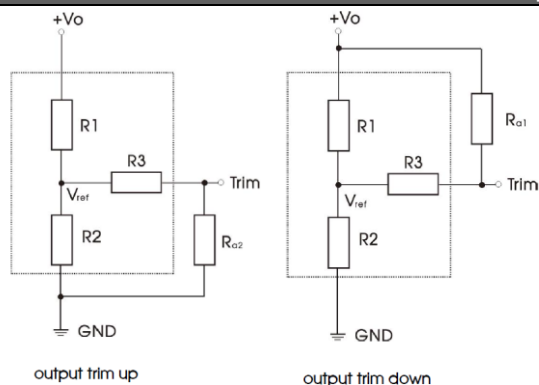
Typical application



C1	C2
10μF/50V	22μF/10V

To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high frequency low resistance electrolytic capacitor.

Trim Function for Output Voltage Adjustment (open if unused)



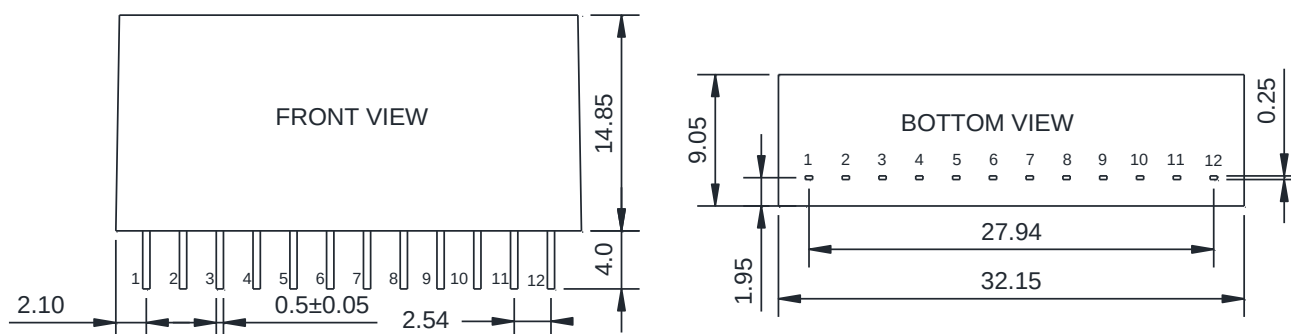
R1(kΩ)	R2(kΩ)	R3(kΩ)	Vref (V)
27	5.1	10	0.8

$$\text{Trim up : } R_{a2} = \frac{aR_2}{R_2 - a} - R_3, \quad a = R_2 / (R_3 + R_{a2}) = \frac{V_{\text{ref}}}{V_o' - V_{\text{ref}}} R_1$$

$$\text{Trim down : } R_{a1} = \frac{aR_1}{R_1 - a} - R_3, \quad a = R_1 / (R_3 + R_{a1}) = \frac{V_o' - V_{\text{ref}}}{V_{\text{ref}}} R_2$$

The usage circuit of Trim (dashed boxes refer to the internal parts of the product)

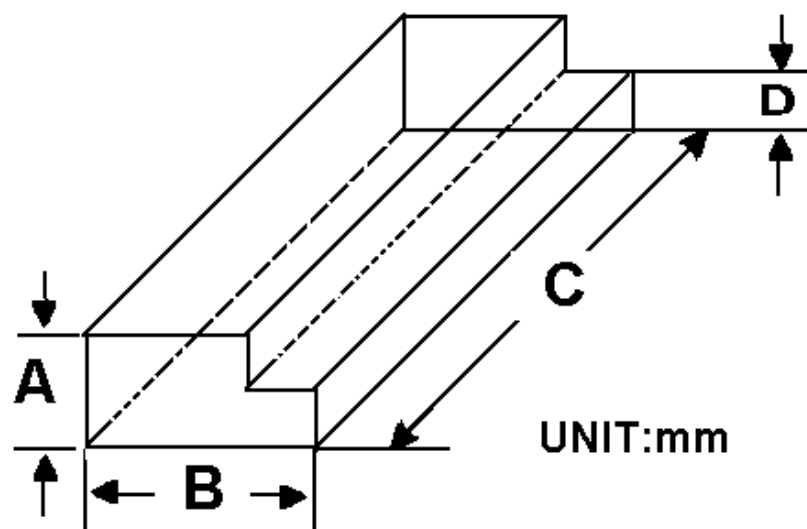
Outline Dimensions



UNIT: mm Unless otherwise specified, all tolerances are ± 0.25

PIN	1	2,3,4	5,6,7,8	9,10,11	12
FUNCTION	Ctrl	+Vin	GND	+Vout	Trim

Packing Formation



Weight	: 9.5 grams/pcs
Tube	: 15 pcs