EPM6-2V

1 Watt isolated DC-DC converter

Product features

- 1 Watt isolated DC-DC converter
- Input voltage: 5 Vdc, 12 Vdc, and 24 Vdc
- Efficiency up to 82%
- Isolation voltage 3 kVdc
- SIP7 package (4 and 5 pin)
- Operating ambient temperature from -40 °C to +100 °C
- No minimum load required
- IEC62368-1/ EN55032&35 certified

Applications

- Computing/telecom
- Distributed power architectures
- Servers and workstations
- LAN / WAN applications
- Data processing applications
- Industrial IoT equipment, sensors
- Power supply, battery backup
- Wireless TX/RX modules
- Renewable energy products

Environmental compliance

RoHS

Ordering part number

EPM 6 05 2V 3R3 303 S R

- Eaton converter
- Package type/size code
- Maximum rated input voltage
- Version code
- Output voltage (maximum, R=decimal point)
- Output current (maximum, in mA)
- S = single output, D = dual output
- R= Standard isolation voltage

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Specifications

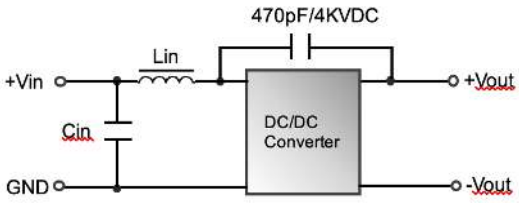
	Parameter

Part number	Input voltage (Vdc)	Output voltage (Vdc)	Output current @ full load (mA)	Efficiency[1] minimum	Efficiency[1] typical	Capacitive load[2] maximum (µF)
EPM6052V-3R3-303SR	5	3.3	303	71%	74%	1500
EPM6052V-05R-200SR	5	5	200	76%	79%	1500
EPM6052V-12R-084SR	5	12	84	75%	78%	470
EPM6052V-15R-067SR	5	15	67	82%		

Derating curve

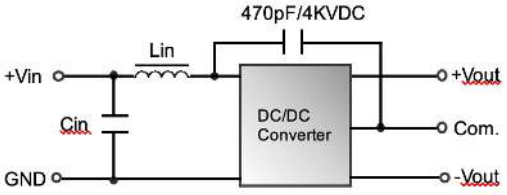
EMC filtering circuit

Single



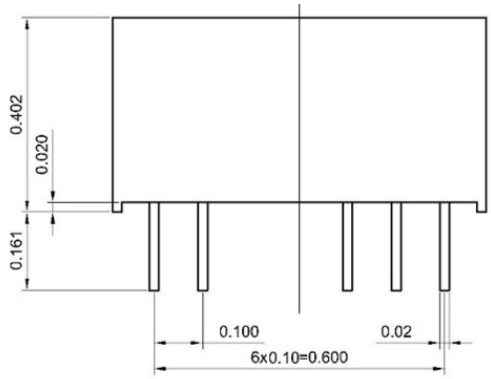
Class	5 Vin	12 Vin	24 Vin
Class A	47 µH/ 2.2 µF	22 µH/ 2.2 µF	10 µH/ 2.2 µF
Class B	47 µH/ 10 µF	22 µH/ 4.7 µF	22 µH/ 4.7 µF

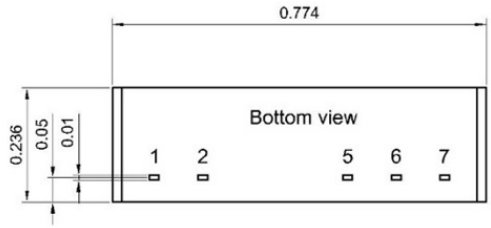
Dual



Class	5 Vin	12 Vin	24 Vin
Class A	22 µH/ 2.2 µF	22 µH/ 2.2 µF	10 µH/ 2.2 µF
Class B	100 µH/ 4.7 µF	22 µH/ 4.7 µF	47 µH/ 2.2 µF

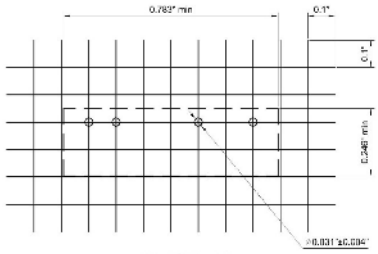
Dimensions - inches





Projection: Third angle projection
Unit: inch
PIN tolerance: ± 0.004
Tolerance: X.XX ± 0.02 X.XXX ± 0.01

Recommended PCB layout

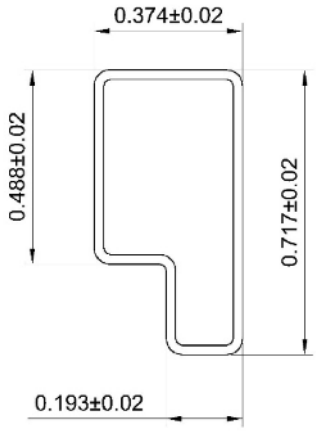


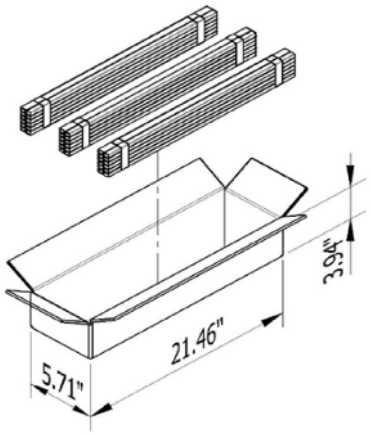
Marking

WLY = lot code

Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No pin	Common
7	+Vout	+Vout

Packaging- Inches





Unit: inch
1 tube = 25 pieces
Length: 20.47 ± 0.08

Carton = 21.46*5.71*3.94 inch
25 (pieces/tube)*12(tube/bundle)*3(bundle) = 900 pieces

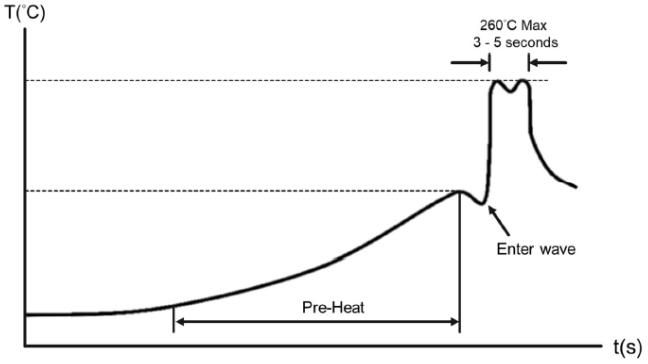
General information

Storage and handling

The shelf life will be a minimum of 36 months, when stored at the following conditions: < +40 °C, < 90% RH.

Wave solder profile

The wave solder profile is measured based on lead temperature. The recommended PCB pre-heat temperature is +80 °C to +100 °C, and the preheat rate of 1.5 to 2.5 °C/sec. The underside PCB temperature at the last pre-heat zone should be approximately +150 °C. The internal temperature of the solder parts should not exceed +210 °C. The duration of solder dwell time should be between 3 to 5 seconds, and not to exceed 10 seconds at a temperture of +260 °C maximum.



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