

EPM7-1V

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: 4 kVdc
- SIP7 (4 and 5 pin) package
- Operating ambient temperature from -40 °C to +100 °C
- No minimum load required
- IEC62368-1/ EN55032&35 certified

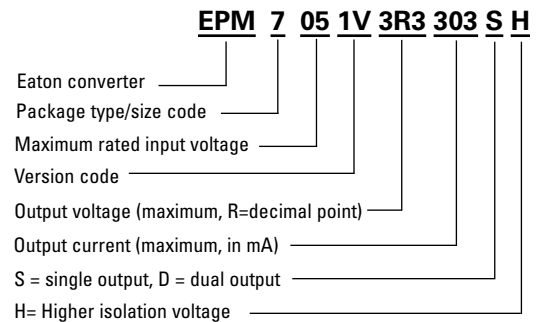
Applications

- 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



Ordering part number



Specifications

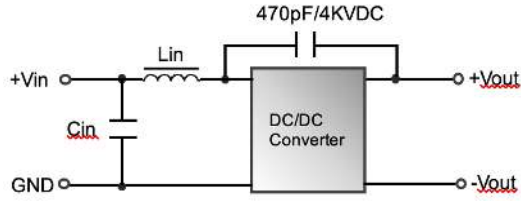
Parameter

Part number	Input voltage (Vdc)	Output voltage (Vdc)	Output current @ full load (mA)	Efficiency¹ minimum	Efficiency¹ typical	Capacitive load² maximum (µF)
EPM7051V-3R3-303SH	5	3.3	303	71%	74%	1500
EPM7051V-05R-200SH	5	5	200	76%	79%	1500
EPM7051V-12R-084SH	5	12	84	75%	78%	470
EPM7051V-15R-067SH	5	15	67	82%		

Derating curve

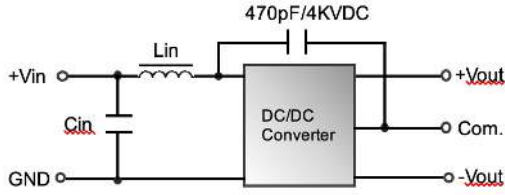
EMC filtering circuit

Single



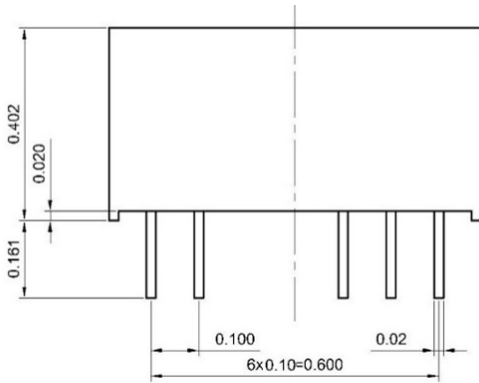
Class	5 Vin	12 Vin	24 Vin
Class A	47 μ H/ 2.2 μ F	22 μ H/ 2.2 μ F	10 μ H/ 2.2 μ F
Class B	47 μ H/ 10 μ F	22 μ H/ 4.7 μ F	22 μ H/ 4.7 μ F

Dual



Class	5 Vin	12 Vin	24 Vin
Class A	22 μ H/ 2.2 μ F	22 μ H/ 2.2 μ F	10 μ H/ 2.2 μ F
Class B	100 μ H/ 4.7 μ F	22 μ H/ 4.7 μ F	47 μ H/ 2.2 μ F

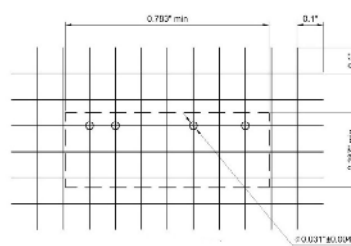
Dimensions - inches



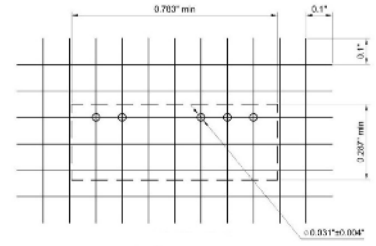
Projection: Third angle projection
Unit: inch
PIN tolerance: ± 0.004
Tolerance: X.XX ± 0.02 X.XXX ± 0.01

Recommended PCB layout

Single



Dual

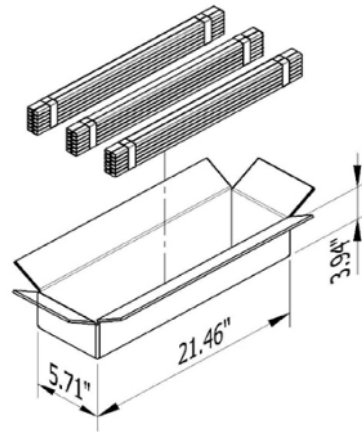
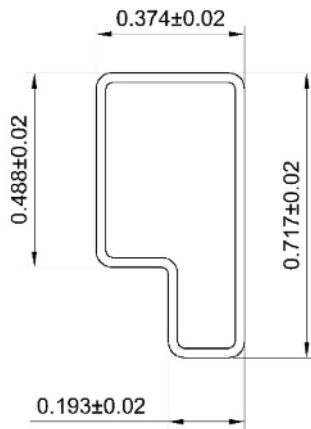


Marking



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

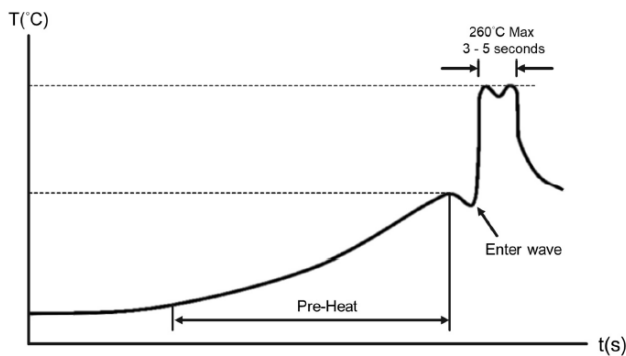
General information

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 temperature of +260 °C maximum.



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