

Description

GEF28C02MZ DC/DC filter features an input voltage range of 10V~32V, output current of 2A, and an operating temperature range of -55°C~+105°C. It adopts PCB surface-mount technology with a metal case and potting encapsulation. The product weighs approximately 22g and is used in DC power supply systems to provide EMI filtering and surge voltage suppression. This module has the following characteristics:

Product Features

1. 100% localization of components
2. Input reverse connection protection
3. Complies with GJB181-86 (MIL-STD-704)



3 years
Warranty

1.Selection Guide

Product Model	Output Voltage (V)	Output Current(A)	module voltage drop (@28VDC,3A,V/Max.)
GEF28C02MZ	10~32	2	2.5

2.Environmental Specifications

Item	Min.	Typ.	Max.	Unit	Remarks
Operating temperature	-55	25	105	°C	Baseplate temperature
Storage temperature	-55	25	125	°C	
Relative humidity	-	-	95	%	non-condensing
Pin Soldering Resistance Temperature	-	-	300	°C	Soldering time shall not exceed 10 seconds

3.Electrical Specifications

Input Specifications	Condition	Minimum	Typical	Maximum	Unit
Input voltage range	$I_{out}=0\sim 100\%I_o$	10	28	32	V
Input reverse polarity protection	equipped				

Output Specifications	Condition	Minimum	Typical	Maximum	Unit
Module voltage drop	$V_{in}=28V, 2A$	-	-	2.5	V
Surge voltage output	$V_{in} = 100V / 500ms$, 1 time per minute, total 3 times, at 25°C	-	33	35	V
Peak voltage output	$V_{in} = \pm 600V / 10\mu s$, 50 times per minute, at 25°C	-	34	36	V

General Specifications		Condition	Minimum	Typical	Maximum	Unit
Insulation resistance		Add 500VDC between input and output, between input and shell, between output and shell for 10s	100	-	-	MΩ
Isolation voltage	Input-Housing	$t=1min$ set the leakage current to 1mA	500	-	-	VDC
	Output-Housing		500	-	-	

Physical characteristics	
Dimension	63.2*24.0*11.6mm
Weight	22g (Type)
Cooling Method	Conduction Heat Dissipation

4. Product Characteristic Curve

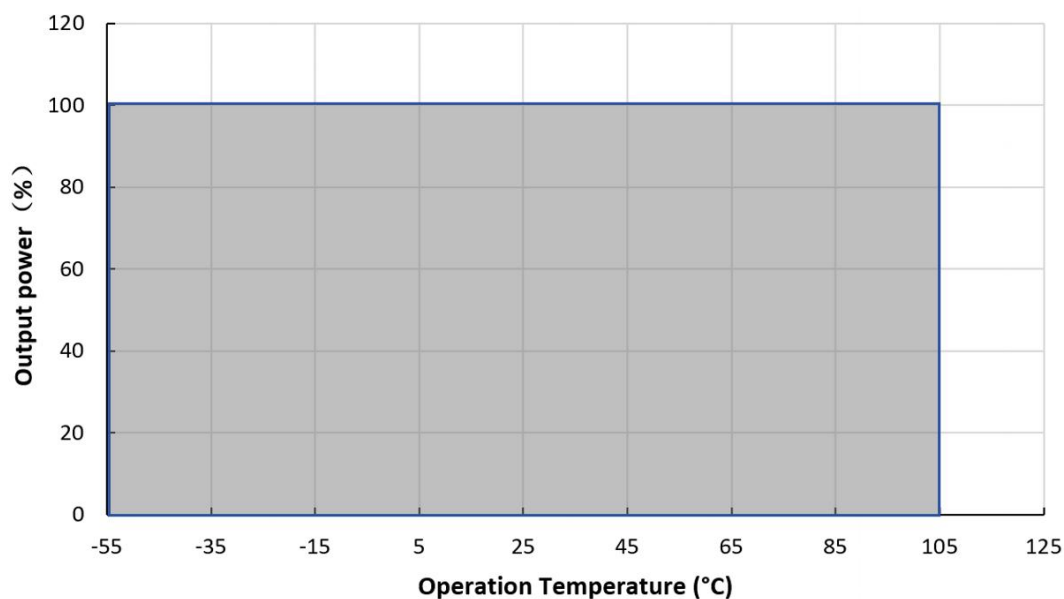
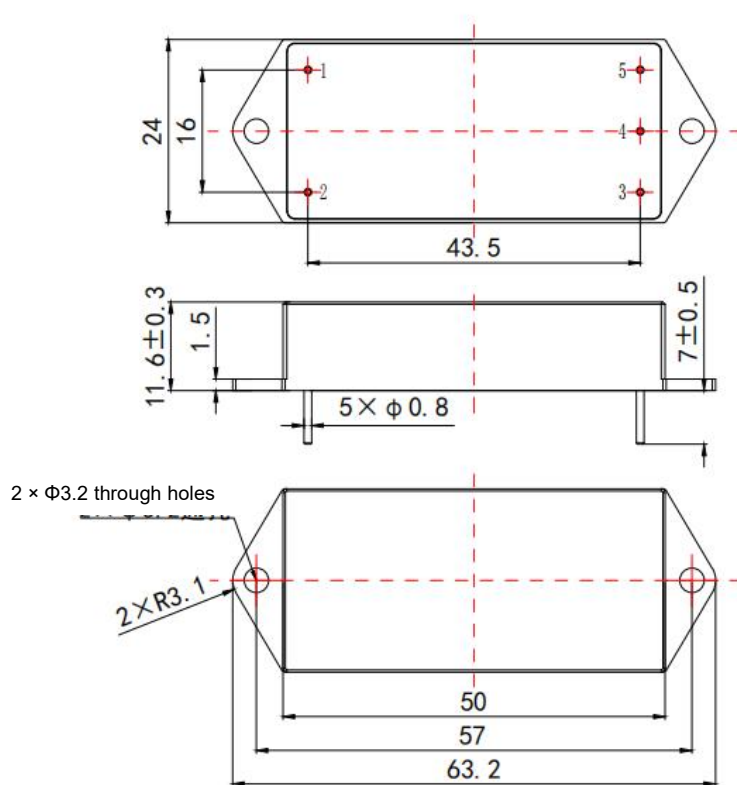


Fig1

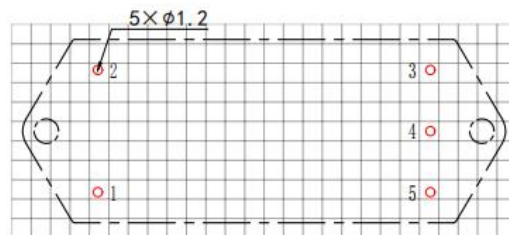
5. Dimension and Terminal Definition

Fig. 2: Mechanical Dimensions



Notes:

1. First viewing angle
2. Five - sided metal, anodized matte black
3. Unit of dimension: mm
4. Terminal diameter tolerance: $\pm 0.1\text{mm}$
5. Unmarked tolerance: $\pm 0.2\text{mm}$



Recommended printed circuit board (with pins facing down)
Note: The grid size is 2.54 * 2.54mm

Pin	Function
1	Vin+
2	Vin-
3	Vout-
4	Case
5	Vout+

Fig. 3: Pin Configuration (Top View, Pins Facing Up)

6.Precautions

- 6.1. Do not reverse the polarity of the power supply. Pay attention to the input voltage range, which is 9V ~ 36V;
- 6.2. Please use wide PCB leads or thick wires between the power module and the load, and keep the line voltage drop below 1% V_o to ensure that the output voltage of the power module remains within the specified range;
- 6.3. The measurement of voltage must be conducted at the root of the module terminals, eliminating the measurement errors caused by the test tooling fixtures.
- 6.4. The impedance of the lead may cause output voltage oscillation or large ripple. Please make sufficient evaluation before use;
- 6.5. Prevent product collision;
- 6.6. Pay attention to the "1" pin (or ESD) identification, according to the correct installation direction plate welding;
- 6.7. Heat sink or other heat dissipation measures should be installed to ensure that the shell temperature is lower than the maximum operating temperature specified by the product. The operating temperature range of the product is: $-55\text{ }^{\circ}\text{C} \leq T_C \leq 105\text{ }^{\circ}\text{C}$;
- 6.8. Lead welding temperature is less than 300 $^{\circ}\text{C}$, welding time should not exceed 10 seconds;

Note:

1. Our products shall be classified and stored according to ISO17501 and relevant environmental laws and regulations after being scrapped, and shall be handled by qualified units;
2. Except for special instructions, all indicators in this manual are measured when $T_a = 25\text{ }^{\circ}\text{C}$, humidity <75%, nominal input voltage 28V and output rated load;
3. The test methods of all indicators in this manual are based on the company's enterprise standards;
4. Our company can provide customized products, specific needs can directly contact our technical personnel;
5. If the product involves multi-brand materials, please refer to the manufacturer's standards for differences such as different colors.