



BZ946

5 piece diode module

BZ Art. Nr. 911

Content:	Page:
1. Description / function	2
2. Technical data	2 / 3
2. Wiring diagram	3
4. Measures	4



Description / function

1.1. Description

This diode module is equipped with 5 power diodes with separate connections. The device is a successor product to the original DIBLO5 but with more output power. The robust diodes are designed for applications as a blocking diode and as protection for relay windings, valve coils etc., The device is designed as a mounting rail version with a 14-pin front connector.

1.2. Function

General use in control circuits as well as typical railway applications.

Technical data

• Standards

The product is manufactured in accordance with the following standards:

ISO 9001:2015
Electronic equipment used on rolling stock: EN50155
Electromagnetic compatibility: EN50121-3-2
Isolation: EN50124-1
Shock and vibration: EN50155/EN61373
Fire protection according to EN 45545

The standards applicable to this product are dependent on the version available at the time of development.

2.1. Mechanical data

• Measures

B x T x H: 42 x 81 x 107 mm (ohne Frontstecker)
Gewicht : ca. 230 g

• Materials

PCB board: Epoxy FR4
Housing: Aluminium

• Mounting

Fixing : Mounting clip on T-rail 35mm, EN-50022-35
Pay attention to side ventilation - the device can get very hot, depending on the ambient temperature

• Screwless front facing connector strip

14-pin connector pin: WAGO (codeable)



B + Z Elektronik AG

Erstellt: 26.11.19
Änderung:
Index:
Datei: bz946 5 fach
diodenmodul_e_kd.doc

Seite: 2/4

BZ946
5-piece diode module

- **Mating connector** **optional (please order separately)**

14-pin socket strip:

WAGO Single row spring terminal connector with strain relief B+Z Art. Nr. 561
WAGO Double row spring terminal connector without strain relief B+Z Art. Nr. 565

2.2. Electrical data

- **Diode specifications**

Amount of diodes: 5 single wired power diodes
Constant current max: 3.5 A per diode permanently
Vf typical 1.0V
Umax permanent: 300V

Max. peak reverse voltage: 1200V

Max. Current impulse resistance 10ms:

:

ABSOLUTE MAXIMUM RATINGS				
PARAMETER	SYMBOL	TEST CONDITIONS	VALUES	UNITS
Maximum average forward current	$I_{F(AV)}$	$T_C = 105\text{ }^\circ\text{C}$, 180° conduction half sine wave	20	A
Maximum peak one cycle non-repetitive surge current	I_{FSM}	10 ms sine pulse, rated V_{RRM} applied	250	
		10 ms sine pulse, no voltage reapplied	300	
Maximum I^2t for fusing	I^2t	10 ms sine pulse, rated V_{RRM} applied	316	A ² s
		10 ms sine pulse, no voltage reapplied	442	
Maximum $I^2\sqrt{t}$ for fusing	$I^2\sqrt{t}$	t = 0.1 ms to 10 ms, no voltage reapplied	4420	A ² √s

2.3. Other conditions

- **Climatic conditions**

Environment temperature: -20°C bis +70°C
Humidity : max 90% rF, at30°C, non condensing.
Protection type: IP 30

- **Disposal**

According to local regulations



B + Z Elektronik AG

Erstellt: 26.11.19

Änderung:

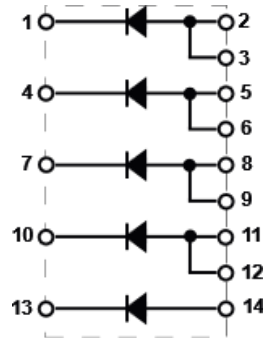
Index:

Datei: bz946 5 fach
diodenmodul_e_kd.doc

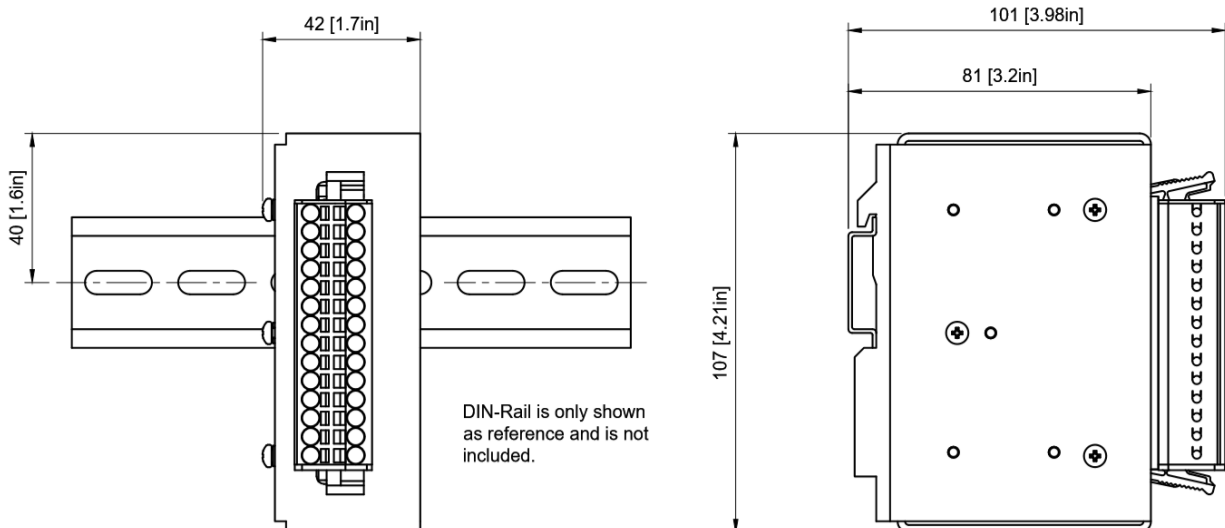
Seite: 3/4

BZ946
5-piece diode module

Connection / Wiring diagram



Measures



B + Z Elektronik AG

Erstellt: 26.11.19
Änderung:
Index:
Datei: bz946 5 fach
diodenmodul_e_kd.doc

Geprüft:
Geprüft:
Seite: 4/4

BZ946
5-piece diode module