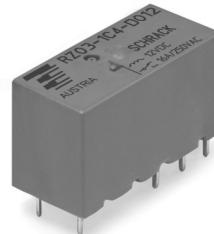


## Power PCB Relay RZ

- 1 pole 12/16 A, 1 form C (CO) or 1 form A (NO) contact
- DC coil 400 mW
- 5kV/10mm coil-contact, reinforced insulation
- Ambient temperature 85°C
- Product in accordance to IEC 60335-1
- Reflow version for THR mounting process



## Typical applications

Household appliances, boiler control, timers, garage door control, POS automation



F0305-A

**Approvals**

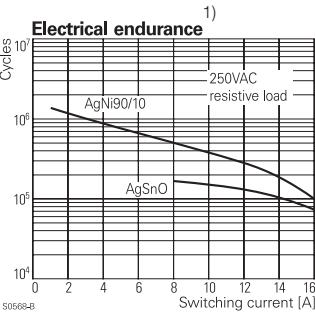
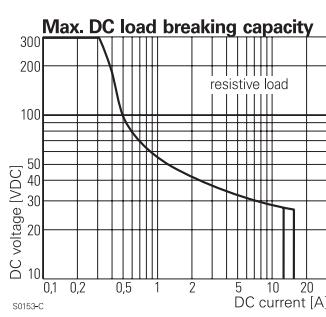
VDE Cert. No. 40023970, UL E214025, CQC 12002066685

Technical data of approved types on request

	<b>12A</b>	<b>16A</b>
Contact arrangement	1 form C (CO) or 1 form A (NO)	
Rated voltage	250VAC	
Max. switching voltage	400VAC	
Rated current	12A	16A
Limiting making current (form A contact)		
max. 4s, duty factor 10%	30A	
max. 20ms (incandescent lamp); AgSnO <sub>2</sub>	80A	
Breaking capacity max.	3000VA	4000VA
Contact material	AgNi 90/10 or AgSnO <sub>2</sub>	
Frequency of operation, with/without load	360/72000h <sup>-1</sup>	
Operate/release time max.	8/6ms	
Bounce time max., form A/form B	4/10ms	

**Contact ratings for standard version**

Type	Contact	Load	Cycles
<b>IEC 61810</b>			
RZ03-1A4	A (NO)	16A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ03-1C4	C (CO)	16A, 250VAC, 85°C	10x10 <sup>3</sup>
RZ01-1A3	A (NO)	12A, 250VAC, 85°C	100x10 <sup>3</sup>
RZ01-1A4	A (NO)	12A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ01-1C4	C (CO)	12A, 250VAC, 85°C	30x10 <sup>3</sup>
RZ01/3-1A4	A (NO)	10A, 250VAC, 85°C	150x10 <sup>3</sup>
RZ0H-1A4	A (NO)	12A, 250VAC, 85°C	150x10 <sup>3</sup>
RZ0H-1A4	A (NO)	16A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ0H-1A4	A (NO)	18A, 250VAC, 85°C	30x10 <sup>3</sup>
<b>UL 508</b>			
RZ03-1A.	A (NO)	16A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ03-1A4	A (NO)	12A, 250VAC, 85°C	150x10 <sup>3</sup>
RZ01-1A3	A (NO)	12A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ03-1..4	A (NO)	B300, R300, 85°C	6x10 <sup>3</sup>
RZ03-1..4	A (NO)	12A, 250VAC, 85°C	100x10 <sup>3</sup>
RZ03-1..4	A (NO)	1/2HP, 125VAC, 85°C	6x10 <sup>3</sup>
RZ03-1A.	A (NO)	1HP, 277VAC, 85°C	30x10 <sup>3</sup>



1) valid for standard cover version

## Power PCB Relay RZ (Continued)

**Coil Data**

Coil voltage range	3 to 48VDC
Operative range, IEC 61810	2
Coil insulation system according UL1446	class F

**Coil versions, DC coil**

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance $\Omega \pm 10\%$	Rated coil power mW
D003	3	2.1	0.3	22	410
D005	5	3.5	0.5	60	420
D006	6	4.2	0.6	90	400
D009	9	6.3	0.9	200	400
D012	12	8.4	1.2	360	400
D015	15	10.5	1.5	562	410
D024	24	16.8	2.4	1440	400
D048	48	33.6	4.8	5730	400

All figures are given for coil without pre-energization, at ambient temperature +23°C.  
 Other coil voltages on request.

**Insulation Data**

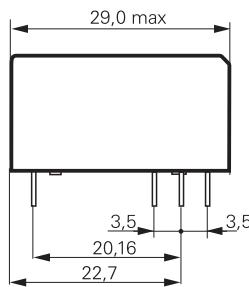
Initial dielectric strength between open contacts	1000V <sub>rms</sub>
between contact and coil	5000V <sub>rms</sub>
Clearance/creepage between contact and coil	$\geq 10/10\text{mm}$
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250V

**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customersupport/rohssupportcenter">www.te.com/customersupport/rohssupportcenter</a>	
Resistance to heat and fire standard and reflow cover version according EN 60335-1, par.30	
Ambient temperature standard version	-40 to 85°C
Category of environmental protection IEC 61810	RTII - flux proof
Vibration resistance (functional), 30 to 500Hz closing form A contact	>15g
opening form A contact	>20g
opening form B contact	>5g
Shock resistance (destructive)	100g

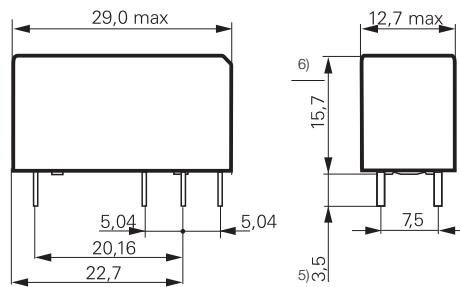
**Dimensions**

12A, pinning 3.5mm



S0557-AB

12A, 16A, pinning 5mm



S0557-AA

5) only for reflow version 2,5mm

6) only for reflow version 15,7 +0,3/-0mm

5) only for reflow version 2,5mm

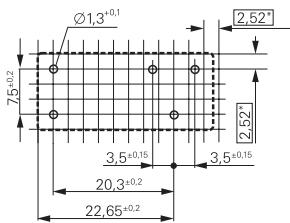
6) only for reflow version 15,7 +0,3/-0mm

### Power PCB Relay RZ (Continued)

#### PCB layout / terminal assignment

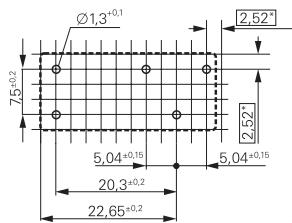
Bottom view on solder pins

12A, pinning 3.5mm



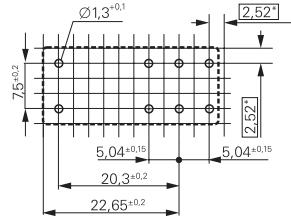
S0418-CB

12A, pinning 5mm



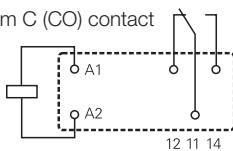
S0418-CN

16A, pinning 5mm



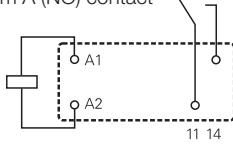
S0418-CA

1 form C (CO) contact



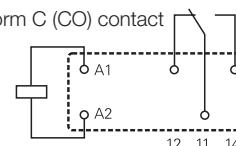
S0163-BG

1 form A (NO) contact



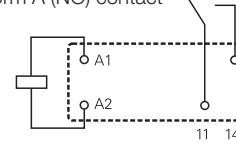
S0163-BH

1 form C (CO) contact



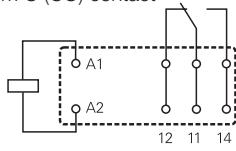
S0163-BC

1 form A (NO) contact



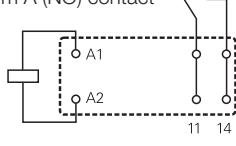
S0163-BD

1 form C (CO) contact



S0163-BE

1 form A (NO) contact



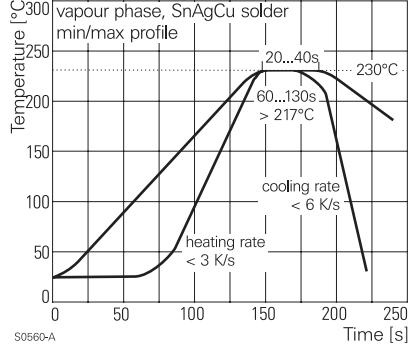
S0163-BF

#### Process conditions for Reflow soldering according to EN61760-1

Recommended pcb hole for manual mounting:  
Ø1.3mm

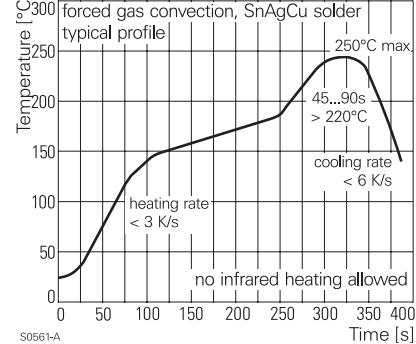
For automated mounting please ask for  
detailed drawing.

#### Reflow temperature profile



S0560-A

#### Reflow temperature profile



S0561-A

#### Product code structure

**Type**  
**RZ** Power PCB Relay RZ

**Version**  
**0** standard version

**R** reflow version (only with AgNi contacts and reinforced cover)

**Version**  
**1** 3.5mm pinning, 12 A  
**2** 5mm pinning, 12 A

**3** 5mm double pinning, 16 A  
**H** High Performance 5mm double pinning, 16 A

**Contact configuration**  
**1A** 1 form A (1 NO) contact

**1C** 1 form C (1 CO) contact

**Contact material**

**4** AgNi 90/10

**3** AgSnO<sub>2</sub>

**Coil version**

Coil code: please refer to coil versions table

**Cover version**

**blank** standard (hot-stamped)

**R** reinforced flux proof (epoxy) and Plug-In capable (only AgNi contact versions)

## Power PCB Relay RZ (Continued)

Product code	Version	Contacts	Contact material	Coil	Part number
RZ01-1A3-D005	12A pinning 3.5mm	1 form A (NO)	AgSnO <sub>2</sub>	5VDC	3-1415899-7
RZ01-1A3-D006				6VDC	3-1415899-8
RZ01-1A3-D012				12VDC	3-1415899-9
RZ01-1A3-D024				24VDC	4-1415899-0
RZ01-1A3-D048				48VDC	4-1415899-1
RZ01-1A4-D005			AgNi 90/10	5VDC	1415899-1
RZ01-1A4-D006				6VDC	1415899-2
RZ01-1A4-D009				9VDC	1415899-3
RZ01-1A4-D012				12VDC	1415899-4
RZ01-1A4-D024				24VDC	1415899-5
RZ01-1A4-D048				48VDC	1415899-6
RZ01-1C3-D005		1 form C (CO)	AgSnO <sub>2</sub>	5VDC	4-1415899-2
RZ01-1C3-D006				6VDC	4-1415899-3
RZ01-1C3-D012				12VDC	4-1415899-4
RZ01-1C3-D024				24VDC	4-1415899-5
RZ01-1C3-D048				48VDC	4-1415899-6
RZ01-1C4-D005			AgNi 90/10	5VDC	1415899-7
RZ01-1C4-D006				6VDC	1415899-8
RZ01-1C4-D009				9VDC	1415899-9
RZ01-1C4-D012				12VDC	1-1415899-0
RZ01-1C4-D024				24VDC	1-1415899-1
RZ01-1C4-D048				48VDC	1-1415899-2
RZ03-1A3-D005	16A pinning 5mm	1 form A (NO)	AgSnO <sub>2</sub>	5VDC	4-1415899-7
RZ03-1A3-D006				6VDC	4-1415899-8
RZ03-1A3-D012				12VDC	4-1415899-9
RZ03-1A3-D024				24VDC	5-1415899-0
RZ03-1A3-D048				48VDC	5-1415899-1
RZ03-1A4-D005			AgNi 90/10	5VDC	1-1415899-3
RZ03-1A4-D006				6VDC	1-1415899-4
RZ03-1A4-D009				9VDC	1-1415899-5
RZ03-1A4-D012				12VDC	1-1415899-6
RZ03-1A4-D024				24VDC	1-1415899-7
RZ03-1A4-D048				48VDC	1-1415899-8
RZ03-1C3-D005		1 form C (CO)	AgSnO <sub>2</sub>	5VDC	5-1415899-2
RZ03-1C3-D006				6VDC	5-1415899-3
RZ03-1C3-D012				12VDC	5-1415899-4
RZ03-1C3-D024				24VDC	5-1415899-5
RZ03-1C3-D048				48VDC	5-1415899-6
RZ03-1C4-D005			AgNi 90/10	5VDC	1-1415899-9
RZ03-1C4-D006				6VDC	2-1415899-0
RZ03-1C4-D009				9VDC	2-1415899-1
RZ03-1C4-D012				12VDC	2-1415899-2
RZ03-1C4-D015				15VDC	8-1415899-2
RZ03-1C4-D024				24VDC	2-1415899-3
RZ03-1C4-D048				48VDC	2-1415899-4
RZ03-1C4-D012-R	16A, pinning 5mm reinforced flux proof	1 form C (CO)	AgNi 90/10	12VDC	7-1415899-7
RZ03-1C4-D024-R				24VDC	7-1415899-9
RZ0H-1A4-D012	16A, pinning 5mm, High Performance	1 form A (NO)	AgNi 90/10	12VDC	9-1415899-4
RZ03-1A3-D012-R	16A, pinning 5mm, reinforced flux proof	1 form A (NO)	AgSnO <sub>2</sub>	12VDC	4-215800-2
RZR3-1A4-D012	16A, pinning 5mm, reinforced flux proof and reflow solderable	1 form A (NO)	AgNi90/10	12VDC	tbd
RZR3-1C4-D012	16A, pinning 5mm, reinforced flux proof and reflow solderable	1 form C (CO)	AgNi90/10	12VDC	tbd

This list represents the most common types and does not show all variants covered by this datasheet.  
 Other types on request