

Power PCB Relay RT2 reflow solderable

- 2 pole 8 A, 2 CO or 2 NO contacts
- DC- or AC-coil
- Sensitive coil 400 mW
- 5 kV / 10 mm coil-contact, reinforced insulation
- For THR (Through-Hole Reflow) soldering process
- Product in accordance to IEC60335-1



F0306-A

Applications

Domestic appliances, heating control, emergency lighting, modems

Approvals

in process
 Technical data of approved types on request

Contact data

Contact configuration	2 CO or 2 NO
Contact set	single contact
Type of interruption	micro disconnection
Rated voltage / max. switching voltage AC	250 / 400 VAC
Rated current	8 A, UL: 10 A
Limiting continuous current	8 A, UL: 10 A
Maximum breaking capacity AC	2000 VA
Limiting making capacity, max 4 s, duty factor 10%	15 A
Contact material	AgNi 90/10, AgNi 90/10 gold plated, AgSnO ₂
Rated frequency of operation DC coil with / without load	6 / 1200 min-1
AC coil with / without load	6 / 600 min-1
Operate- / release time DC coil	max 8 / 6 ms
Bounce time DC coil NO / NC contact	max 4 / 10 ms

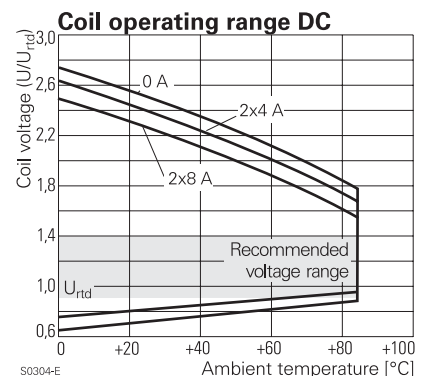
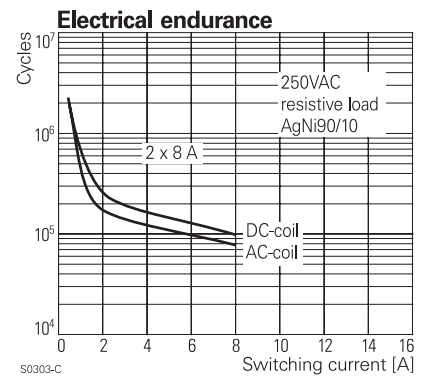
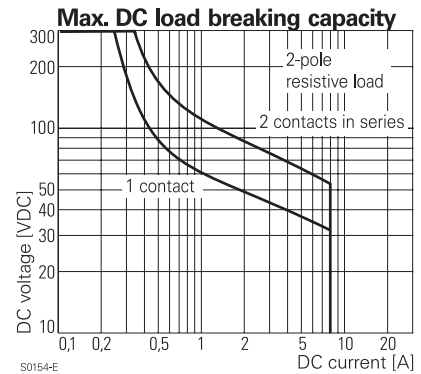
Coil data

Rated coil voltage range DC coil	5...110 VDC
AC coil	24...230 VAC
Operative range to 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 Ω	Rated coil power mW
005	5	3.5	0.5	62 ± 10%	403
006	6	4.2	0.6	90 ± 10%	400
012	12	8.4	1.2	360 ± 10%	400
024	24	16.8	2.4	1440 ± 10%	400
048	48	33.6	4.8	5520 ± 10%	417
060	60	42.0	6.0	8570 ± 12%	420
110	110	77.0	11.0	28800 ± 12%	420

All figures are given for coil without preenergization, at ambient temperature +23°C
 Other coil voltages on request



Power PCB Relay RT2 reflow solderable (Continued)

Coil versions, AC-coil 50Hz

Coil code	Rated voltage VAC	Operate voltage 50 Hz VAC	Release voltage 50 Hz VAC	Coil resistance Ω	Rated coil power 50 Hz VA
524	24	18.0	3.6	350 ± 10%	0.76
615	115	86.3	17.3	8100 ± 15%	0.76
620	120	90.0	18.0	8800 ± 15%	0.75
700	200	150.0	30.0	24350 ± 15%	0.76
730	230	172.5	34.5	32500 ± 15%	0.74

All figures are given for coil without preenergization, at ambient temperature +23°C

Insulation

Dielectric strength coil-contact circuit	5000 V _{rms}
open contact circuit	1000 V _{rms}
adjacent contact circuits	2500 V _{rms}
Clearance / creepage coil-contact circuit	≥ 10 / 10 mm
adjacent contact circuits	≥ 3 / 4 mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 175 V
Insulation to IEC 61810-1	
Type of insulation coil-contact circuit	reinforced
open contact circuit	micro disconnection
adjacent contact circuits	basic
Rated insulation voltage	250 V
Pollution degree	3
Rated voltage system	240 V
Overvoltage category	III

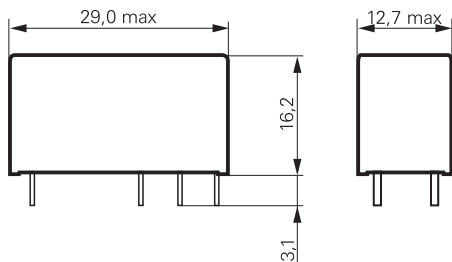
Other data

Mechanical endurance DC coil	> 10 x 10 ⁶ cycles
AC coil	> 2 x 10 ⁶ cycles
Material	
RoHS - Directive 2002/95/EC	compliant
Resistance to heat and fire	according EN60335-1, par.30
Environment	
Ambient temperature range	-40...+85°C
max. ambient temperature AC coil	70°C
max. ambient temperature AgSnO cont.	70°C
Vibration resistance (function) NO / NC contact	20 / 5 g, 30 ... 300 Hz
Shock resistance (destruction)	100 g
Category of protection	RTII - flux proof
Processing	
Mounting	pcb
Mounting distance DC / AC coils	≥ 0 / ≥ 2.5 mm
Wave soldering, soldering heat resistance	270°C / 10 s
Reflow soldering	
soldering process	forced gas convection ¹⁾ or vapour phase ²⁾
temperature profile	according EN61760
Relay weight	13 g
Packaging unit	20 / 500 pcs

¹⁾ infrared heating not allowed

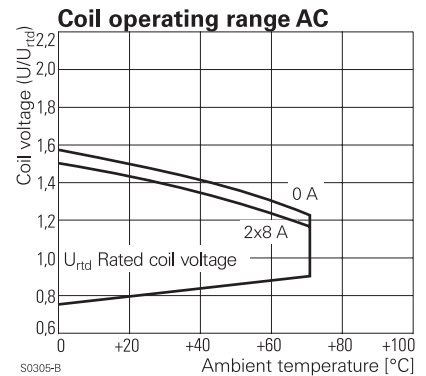
²⁾ recommended fluid LS / 230

Dimensions



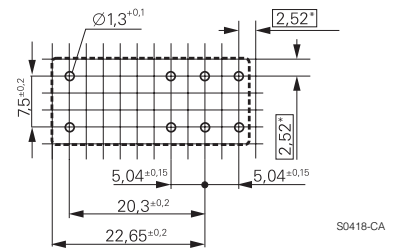
For automated mounting please ask for detailed drawing.

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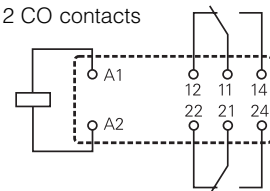
PCB layout / terminal assignment

Bottom view on solder pins



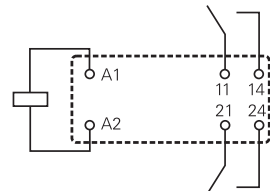
*) With the recommended PCB hole sizes a grid pattern from 2.5 mm to 2.54 mm can be used.

2 CO contacts



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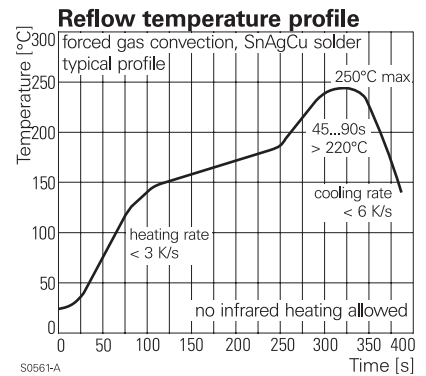
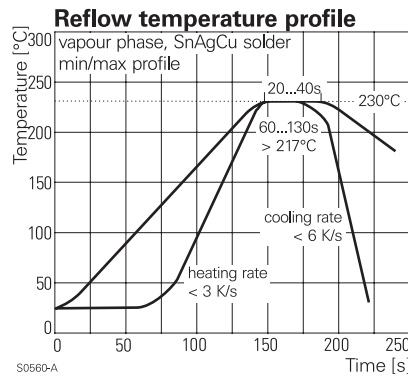
2 NO contacts



S0163-BK

Power PCB Relay RT2 reflow solderable (Continued)

Process conditions for Reflow soldering according to EN61760-1



Product key

Typical product key

RT 4 2 4 012 R

Type

RT Power PCB Relay RT2 reflow solderable

Version

4 8 A, pinning 5 mm, flux proof

Contact configuration

2 **2 CO contacts (2 form C)** 4 2 NO contacts (2 form A)

Contact material

3 AgSnO₂
4 **AgNi 90/10** 5 AgNi 90/10 gold plated

Coil

Coil code: please refer to coil versions table

Version

R Reflow solderable

Preferred types in bold print