

RSR35-...-RZA

solid state relays, miniature



- DC switching • AC or DC control input
- Transistor output • Load current 0,05 A
- Max. load voltage 28,8 V DC
- Very accurate switch ON and OFF levels (not dependent from temperature)
- Very small heat dissipation (0,25 W at 110, 220 V)
- High reliability (MTBF > 700 000 h)
- Suitable for PCB mounted
- Recognitions, certifications, directives: RoHS, REACH, **ERC**

Applications

Substation automation, HVAC, ideal for terminal boards and embedding in PLC DI cards, universal output can be used as PNP and NPN switch, high and stable OFF levels solve common RFI problems with long signal lines in field equipment.



Basic technical data

Load voltage: 3...28,8 V DC

Control input: AC or DC

Load current: 0,05 A

Type		DC switching
Load voltage	Control voltage	Load current
3...28,8 V DC	110, 240 V AC 110, 220 V DC	0,05 A
		RSR35-110U220-RZA

Load voltage

	RSR35-...-RZA
Rated load voltage	24 V DC
Rated range of load voltage	3...28,8 V DC
Blocking voltage	31 V DC

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Control input

	DC switching	DC switching
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Control voltage	110 V AC	240 V AC
Must turn-on voltage range	82...90 V AC	175...185 V AC
Must turn-off voltage range	69...77 V AC	145...155 V AC
Maximum input voltage (unlimited time)	150 V	280 V
Rated input current (typical)	1 mA 110 V AC	1 mA 240 V AC
Response time pick-up	≤ 50 ms	≤ 50 ms
Response time drop-out	≤ 25 ms	≤ 25 ms

Control input

	DC switching	DC switching
	RSR35-...-RZA	RSR35-...-RZA
Control voltage	110 V DC	220 V DC
Must turn-on voltage range	79...87 V DC	165...175 V DC
Must turn-off voltage range	59...67 V DC	125...135 V DC
Maximum input voltage (unlimited time)	150 V	280 V
Rated input current (typical)	1 mA 110 V DC	1 mA 220 V DC
Response time pick-up	≤ 50 ms	≤ 50 ms
Response time drop-out	≤ 25 ms	≤ 25 ms

Output circuit

	RSR35-...-RZA
Rated load current	0,05 A
Rated load range	0,002...0,05 A
Maximum surge current	0,5 A 10 ms
Min. operational current	2 mA
Maximum off-state leakage current (at rated load voltage)	0,05 mA
Maximum on-state voltage drop (at rated current)	1,5 V DC

General data

	RSR35-...-RZA
Dielectric strength	input - output: 2 500 Vrms 50/60 Hz
Minimum insulation resistance	input - output: 1 000 MΩ 500 V DC
Ambient temperature (non-condensation and/or icing)	storage: -30...+100 °C operating: -30...+80 °C

❶ Data given for ambient temperature ≤ 25 °C. Above 25 °C the maximum current decreases - see "Thermal derating curve", page 3.

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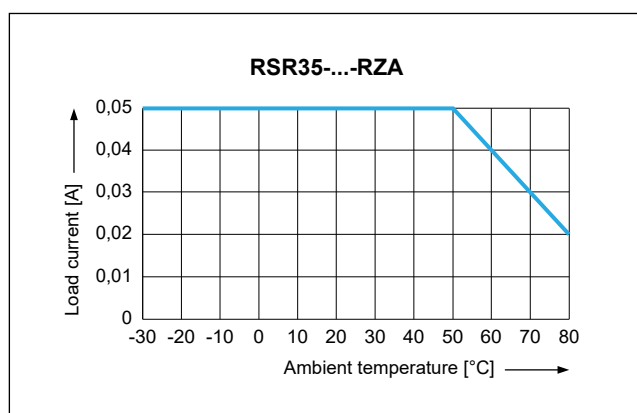
Mechanical data

	RSR35-...-RZA
Dimensions (L x W x H)	28 x 5,2 x 15 mm
Weight (typical)	4 g
Protection category EN 60529	IP 00
Application	PCB
Solder bath temperature	max. 260 °C max. 10 s max. 350 °C max. 5 s

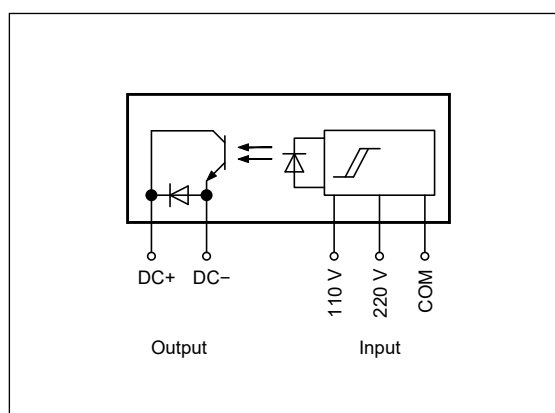
Mounting

Relays **RSR35-...-RZA** are designed for direct PCB mounting.

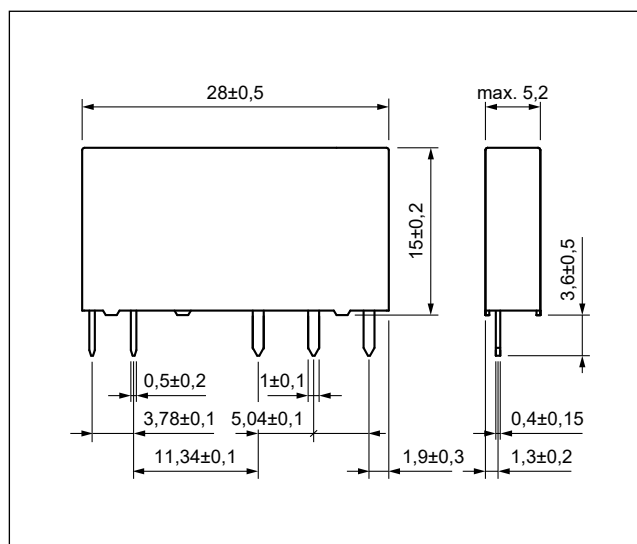
Thermal derating curve



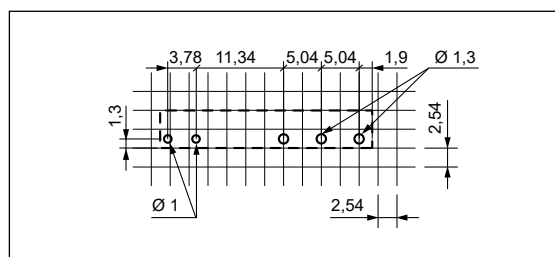
Connection diagram



Dimensions



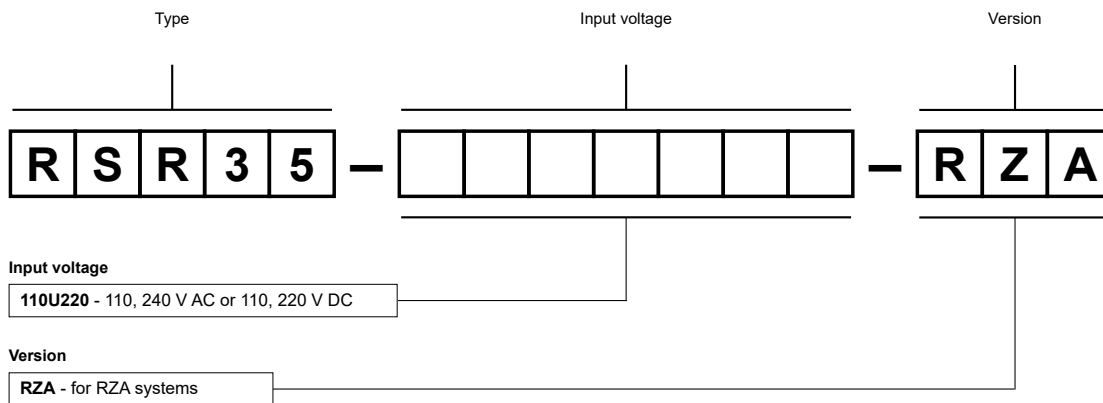
Pinout (solder side view)



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Ordering codes



Example of ordering codes:

RSR35-110U220-RZA

relay **RSR35-...-RZA**, for RZA systems, miniature for PCB, AC or DC control, input voltage 110, 240 V AC or 110, 220 V DC, load voltage 3...28,8 V DC, load current 0,05 A