RSR86
solid state relays, miniature

RSR86-35D12-32N   RSR86-35D12-32P

NEW

- DC switching (instantaneous commutation)
- DC control input (non polarized)
- MOSFET output • Load current 12 A
- Max. load voltage 35 V DC
- Dielectric strength 2 500 V_{rms} (opto-isolation)
- LED indicator (green)
- Suitable for PCB mounted
- Recognitions, certifications, directives:
  RoHS, REACH, $_{c}\mathbf{\mathcal{R}\mathcal{L}}_{us}$

Applications

Recommended for applications demanding fast switching speed, intelligent measuring instruments, PCB electronic systems.

Basic technical data

Load voltage: 0...35 V DC
Control input: DC
Load current: 12 A

Type

Load voltage	Control voltage	DC switching Load current 12 A
0...35 V DC	10...32 V DC	**RSR86-35D12-32N**
		RSR86-35D12-32P

Load voltage

	RSR86-35...
Rated load voltage	24 V DC
Rated range of load voltage	0...35 V DC
Blocking voltage	35 V DC

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Control input

DC switching

	RSR86-..D.-32.
Control voltage range	10...32 V DC
Must turn-on voltage	10 V DC
Must turn-off voltage	< 10 V DC
Rated input current	10,7 mA 24 V DC
Control current range	3,5...14,8 mA ±10%
Response time pick-up	< 0,05 ms
Response time drop-out	< 0,25 ms

Output circuit ❶

	RSR86-...12...
Rated load current	12 A up to 40 °C (stand alone installed)
Rated load range	0,1...12 A
Maximum surge current	120 A 10 ms
Min. operational current	1 mA
Maximum off-state leakage current (at rated load voltage)	0,01 mA
Maximum on-state voltage drop (at rated current)	0,05 V DC
Maximum on-state resistance	7,5 mΩ

General data ❶

	RSR86-...
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: -40...+100 °C operating: -20...+60 °C

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

Mechanical data

	RSR86-...
Dimensions (L x W x H)	29 x 12,7 x 15,7 mm
Weight (typical)	10,5 g
Application	PCB

Mounting

Relays **RSR86** are designed for direct PCB mounting.

Thermal derating curves

RSR86-...12
(stand alone installed)

RSR86-...12
(side by side installed)
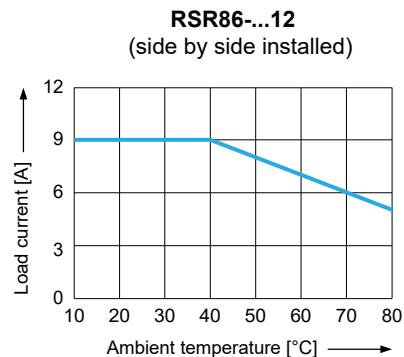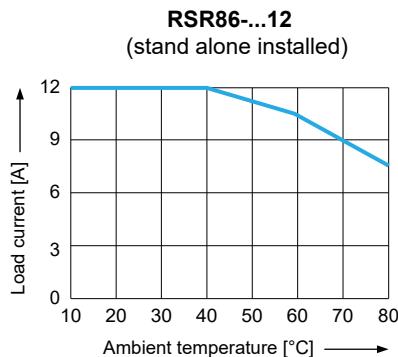
Dimensions
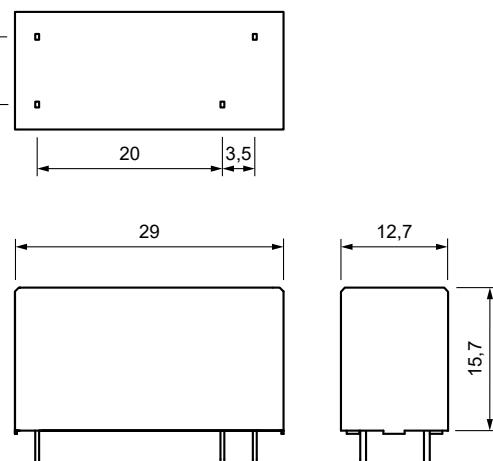
RSR86-...N

RSR86-...P
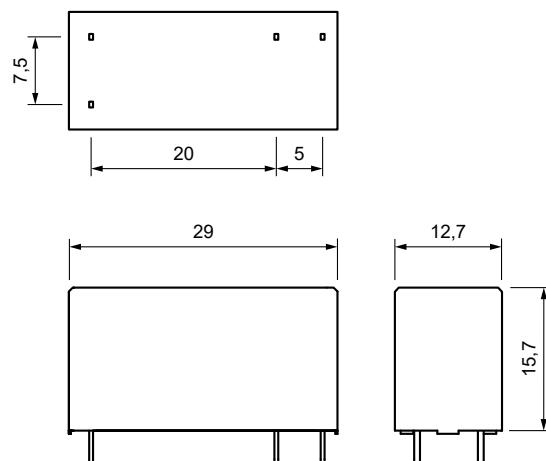
Connection diagram

Ordering codes

Load voltage

35 - 0...35 V DC

Control input

D - DC control

Load current

12 - 12 A

Version

N - miniature for PCB (3,5 mm raster)
P - miniature for PCB (5 mm raster in line)

Input voltage

32 - 10...32 V DC

Examples of ordering codes ❷:

RSR86-35D12-32N   relay **RSR86**, miniature for PCB (3,5 mm raster), DC control, input voltage 10...32 V DC, load voltage 0...35 V DC, load current 12 A

RSR86-35D12-32P   relay **RSR86**, miniature for PCB (5 mm raster in line), DC control, input voltage 10...32 V DC, load voltage 0...35 V DC, load current 12 A

❷ Ordering codes **RSR86** are specified in table "Type" on page 1.