

LOW PROFILE SMT SIGNAL RELAY-TYPE RT1 R SERIES

INTRODUCTION:

Adam Tech RT1 relays are modern, low profile, signal level relays offered in an ultra small package with SMT terminals and are available with coil voltages from 5-48VDC. These 2 form C relays are designed for all low signal applications such as test equipment, security equipment and medical equipment.

FEATURES:

1 Amp switching capability Low profile .192" (4.9mm) Low coil power of 140mw Tape and Reel packaging

SPECIFICATIONS:

Electrical:

Contact arrangement: 2 Form C Contact material: Gold clad, Silver alloy Contact Rating (Resistive load): 0.5A @ 125V AC

offiact hatting (hesistive load). 0.5A @ 125V AC

1A @ 30V DC

Max. Switching Voltage: 120V AC / 30V DC Max. Switching Power: 62VA / 30W Contact resistance: 100 m Ω max. Initial Insulation resistance: 100 M Ω min. @ 500V DC

insulation resistance. 100 M2 min. @ 500V

Dielectric withstanding voltage:

Between Coil & Contact: 500V AC 50/60Hz for 1 min. Between Contacts: 1000V AC 50/60Hz for 1 min.

Operating time: 6 ms max. Release time: 4 ms max.

Electrical Life: 100,000 Operations (at rated load)

MECHANICAL:

Vibration resistance (Endurance): 1.5mm Double Amplitude 10-55Hz

Shock resistance: 10G min.

Mechanical Life: 10,000,000 Operations (no load)

TEMPERATURE RATING:

Ambient temperature: -40°C to +85°C

PACKAGING:

Anti-ESD plastic tubes

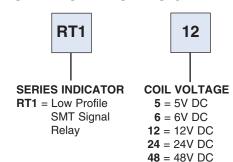
SAFETY AGENCY APPROVALS:

cUL Recognized File No. E305638





ORDERING INFORMATION LOW PROFILE SMT SIGNAL RELAY



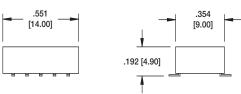


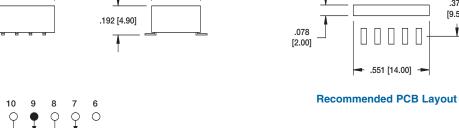
LOW PROFILE SMT SIGNAL RELAY-TYPE RT1 **R SERIES**

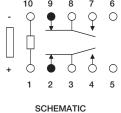
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RT1 SERIES









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RT1-5

| Nominal Voltage V DC | Pick-up Voltage V DC (max.) | Drop-out Voltage V DC (min.) | Nominal Operating Current mA (±10%) | Coil Resistance (±10%) | Nominal Operating Power mW | Max allowable Voltage V DC | |
|----------------------------|--------------------------------|------------------------------------|---|---------------------------|----------------------------------|----------------------------------|--|
| 5 | 3.75 | 0.5 | 28.1 | 178 | 140 | 7.5 | |
| 6 | 4.5 | 0.6 | 23.3 | 257 | 140 | 9 | |
| 12 | 9 | 1.2 | 11.7 | 1,028 | 140 | 18 | |
| 24 | 18 | 2.4 | 8.3 | 2,880 | 200 | 36 | |
| 48 | 36 | 4.8 | 6.3 | 7,680 | 300 | 57.6 | |



RELAY SIGNAL RELAY THRU-HOLE-RT2 R SERIES

INTRODUCTION:

Adam Tech RT2 relays are small signal level relays whose footprint matches a standard 16 pin DIP socket and are available with coil voltages from 5~48VDC. These 2 form C relays are designed for all signal applications up to 2 amps, such as security equipment, test equipment and medical equipment

FEATURES:

High sensitivity: 200 mW nominal operating power.

2 Amp switching capability Power consumption of 200mW

High mounting density on P.C.board by small size and light weight.

Sealed construction.

SPECIFICATIONS:

ELECTRICAL:

Contact arrangement: 2 Form C

Contact material: Gold clad, Silver Alloy

Contact Rating (Resistive load): 1A @ 120V AC

2A @ 30V DC

Max. Switching Voltage: 120V AC / 30V DC Max. Switching Power: 100VA / 60W Contact resistance: 100 m Ω max. Initial

Insulation resistance: 100 M Ω min. @ 500V DC

Dielectric withstanding voltage:

Between Coil & Contact: 500V AC 50/60Hz for 1 min. Between Contacts: 1000V AC 50/60Hz for 1 min.

Operating time: 6 ms max. Release time: 4 ms max.

Electrical Life: 100,000 Operations (at rated load)

MECHANICAL:

Vibration resistance (Endurance): 1.5mm Double Amplitude 10-55Hz

Shock resistance: 10G min.

Mechanical Life: 10,000,000 Operations (no load)

TEMPERATURE RATING:

Ambient temperature: -40°C to +85°C

PACKAGING:

Anti-ESD plastic tubes

Tape & Reel

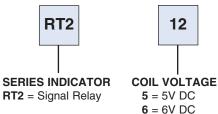
SAFETY AGENCY APPROVALS:

cUL Recognized File No. E305638





ORDERING INFORMATION SIGNAL RELAY

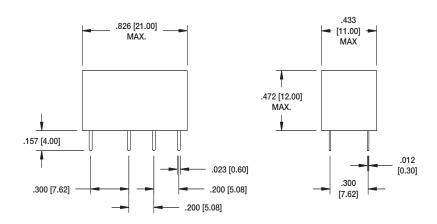


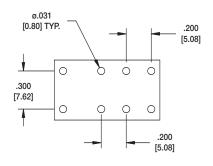
6 = 6V DC 12 = 12V DC 24 = 24V DC 48 = 48V DC



SIGNAL RELAY THRU-HOLE RT2 R SERIES

RT2 SERIES

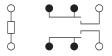






RT2-24

Recommended PCB Layout



Schematic

| Nominal Voltage V DC | Pick-up Voltage V DC (max.) | Drop-out Voltage V DC (min.) | Nominal Operating Current mA (±10%) | Coil Resistance (±10%) | Nominal Operating Power mW | Max allowable Voltage V DC |
|----------------------------|--------------------------------|------------------------------------|---|---------------------------|----------------------------------|----------------------------------|
| 5 | 3.5 | 0.5 | 40 | 125 | 200 | 10 |
| 6 | 4.2 | 0.6 | 33.3 | 180 | 200 | 12 |
| 12 | 8.4 | 1.2 | 16.7 | 720 | 200 | 24 |
| 24 | 16.8 | 2.4 | 8.3 | 2,880 | 200 | 48 |
| 48 | 33.6 | 4.8 | 6.3 | 7,680 | 300 | 86 |



MINIATURE POWER RELAY-TYPE RPS R SERIES

INTRODUCTION:

Adam Tech RPS relays are modern PCB low power relays. Sometimes known as 'Sugar Cube' relays, these small relays can switch loads up to 10 amps. They are available in 1 form A, and 1 form C contact formats within a sealed package. These relays are popular in applications such as small appliances, vending machines, and office equipment.

FEATURES:

10 Amp switching capability Power consumption of 360mW Sealed construction.

SPECIFICATIONS:

ELECTRICAL:

Contact arrangement: 1 Form A & 1 Form C

Contact material: Silver Alloy

Contact Rating (Resistive load): 7A and 10A @ 250V AC

10A @ 30V DC

Max. Switching Voltage: 250V AC / 30V DC Max. Switching Power: 2500VA / 300W Contact resistance: 50 m Ω max. Initial

Insulation resistance: 100 $\mbox{M}\Omega$ min. @ 500V DC

Dielectric withstanding voltage:

Between Coil & Contact: 1500V AC 50/60Hz for 1 min. Between Contacts: 1000V AC 50/60Hz for 1 min.

Operating time: 10 ms max. Release time: 5 ms max.

Electrical Life: 100,000 Operations (at rated load)

MECHANICAL:

Vibration resistance (Endurance): 1.5mm Double Amplitude 10-55Hz

Shock resistance: 10G min.

Mechanical Life: 10,000,000 Operations (no load)

TEMPERATURE RATING:

Ambient temperature: -40°C to +85°C

PACKAGING:

Anti-ESD plastic trays or tubes

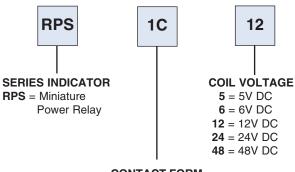
SAFETY AGENCY APPROVALS:

cUL Recognized File No. E305638





ORDERING INFORMATION MINIATURE POWER RELAY



CONTACT FORM

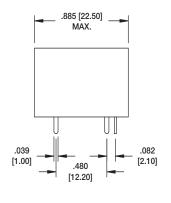
1A = 1 form A **1C** = 1 form C

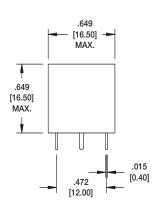


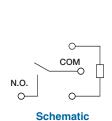
MINIATURE POWER RELAY-TYPE RPS

R SERIES

RPS-1A-X







1 Form A



RPS-1A-24

Recommended PCB Layout 1 Form A

.480

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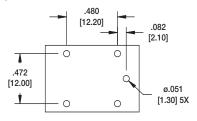
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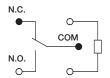
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RPS-1C-X







Schematic 1 Form C

| Nominal Voltage V DC | Pick-up Voltage V DC (max.) | Drop-out Voltage V DC (min.) | Nominal Operating Current mA (±10%) | Coil Resistance (±10%) | Nominal Operating Power mW | Max allowable Voltage V DC | |
|----------------------------|--------------------------------|------------------------------------|---|---------------------------|----------------------------------|----------------------------------|--|
| 5 | 3.5 | 0.5 | 72 | 69.4 | | | |
| 6 | 4.2 | 0.6 | 60 | 100 | | 130%V of nominal | |
| 12 | 8.4 | 1.2 | 30 | 400 | 360 | | |
| 24 | 16.8 | 2.4 | 15 | 1,600 | | Voltage | |
| 48 | 33.6 | 4.8 | 7.5 | 6,400 | | | |



POWER RELAY-TYPE RPM R SERIES

INTRODUCTION:

Adam Tech RPM relays are modern PCB mount medium power relays. These small relays can switch loads up to 10 amps. They are available in four different contact formats and are contained in a sealed package, these relays are perfect for applications such as home appliances, office equipment, DVDs, and microwave ovens.

FEATURES:

10 Amp Switching capability Power consumption of 530mW nominal Sealed construction

SPECIFICATIONS:

ELECTRICAL:

Contact arrangement: 1 Form A, 1 Form C / 2 Form A & 2 Form C

Contact material: Silver Alloy

Contact Rating (Resistive load): 10A @ 250V AC

10A @ 30V DC

Max. Switching Voltage: 250V AC / 30V DC Max. Switching Power: 2500VA / 300W Contact resistance: 50 m Ω max. Initial

Insulation resistance: 1000 M Ω min. @ 500V DC

Dielectric withstanding voltage:

Between Coil & Contact: 5000V AC 50/60Hz for 1 min. Between Contacts: 1000V AC 50/60Hz for 1 min.

Operating time: 15 ms max. Release time: 10 ms max.

Electrical Life: 100,000 Operations (at rated load)

MECHANICAL:

Vibration resistance (Endurance): 1.5mm Double Amplitude 10-55Hz

Shock resistance: 10G min.

Mechanical Life: 10,000,000 Operations (no load)

TEMPERATURE RATING:

Ambient temperature: -40°C to +85°C

PACKAGING:

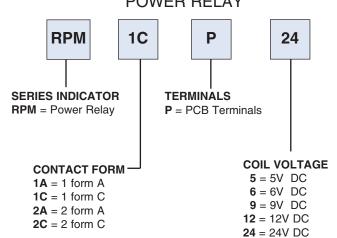
Anti-ESD plastic trays or tubes

SAFETY AGENCY APPROVALS:

cUL Recognized File No. E305638



ORDERING INFORMATION POWER RELAY

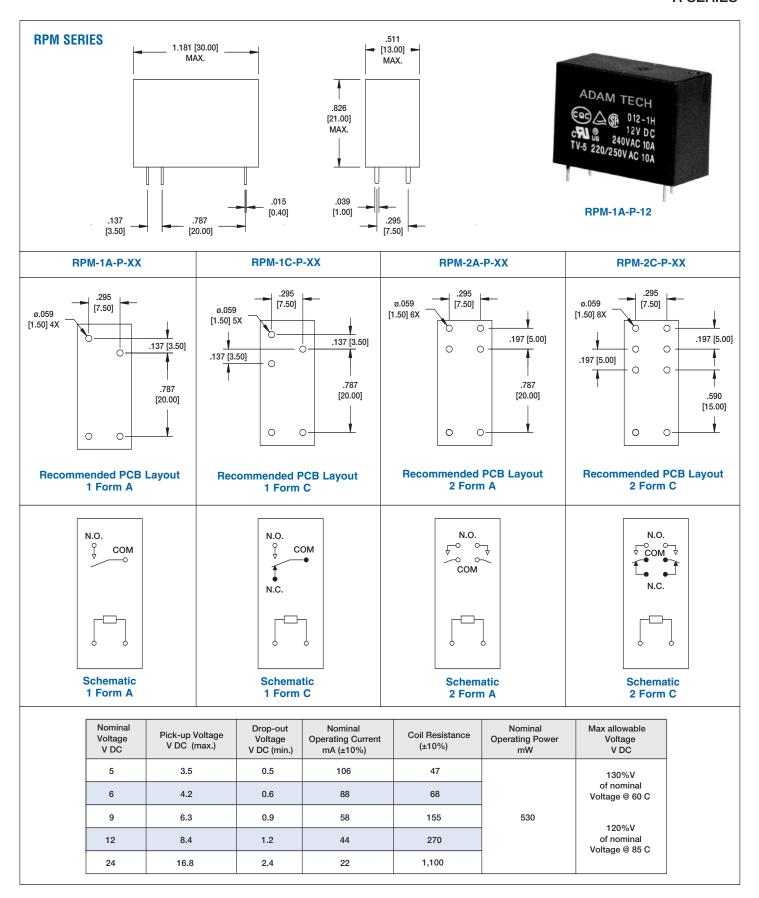






POWER RELAY-TYPE RPM R SERIES

Adam Technologies, Inc.





GENERAL PURPOSE RELAY-TYPE RG1

INTRODUCTION:

Adam Tech RG1 relays are small size general purpose relays available in four different contact formats with either AC or DC activated coils. These relays are available with PCB, Solder, or Quick Connect terminals and a Flange Mount cover option. Rated up to 15 amps, they are ideal for applications such as industrial control equipment, office machines, and medical equipment.

FEATURES:

Contact ratings up to 15 amps AC and DC coils available Top mount flange option

SPECIFICATIONS:

ELECTRICAL:

Contact arrangements: 1 Form A & 1 Form C / 2 Form A & 2 Form C

Contact material: Silver Alloy

Contact Rating (Resistive load): 15A @ 250V AC

15A @ 30V DC

Max. Switching Voltage: 250V AC / 30V DC Max. Switching Power: 3750VA / 450W Contact resistance: 50 m Ω max. Initial

Insulation resistance: 500 M Ω min. @ 500V DC

Dielectric withstanding voltage:

Between Coil & Contact: 2500V AC 50/60Hz for 1 min. Between Contacts: 1500V AC 50/60Hz for 1 min.

Operating time: 25 ms max. Release time: 25 ms max.

Electrical Life: 100,000 Operations (at rated load)

MECHANICAL:

Vibration resistance (Endurance): 1.0mm double amplitude10-55Hz

Shock resistance: 10G min.

Mechanical Life: 10,000,000 Operations (no load)

TEMPERATURE RATING:

Ambient temperature: -45°C to +85°C

PACKAGING:

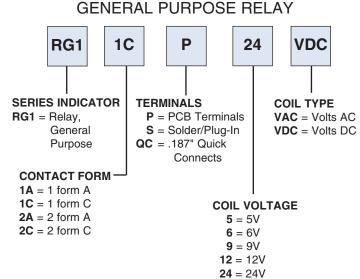
Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:

cUL Recognized File No. E305638



ORDERING INFORMATION



48 = 48V **110** = 110V **220** = 220V

OPTION:

Add designator(s) to end of part number **F** = Top Mount flange







14

2 Form C

GENERAL PURPOSE RELAY-TYPE RG1 R SERIES

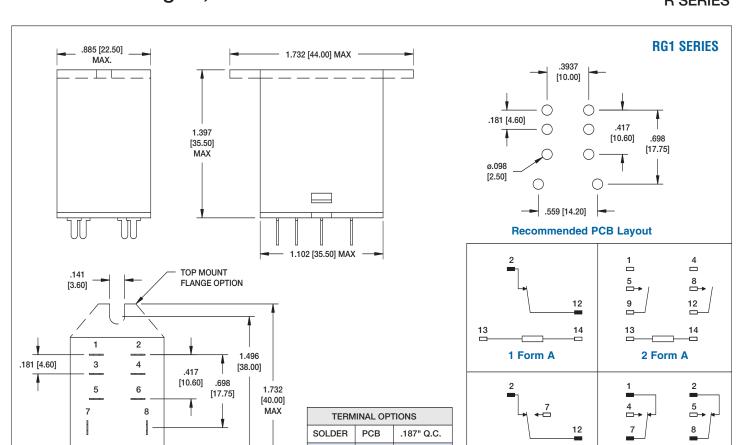
14

1 Form C

13 —

13 __

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DC Types @ 20° C

| Nominal Voltage | Pick-up Voltage V DC (max.) | Drop-out Voltage | Nominal Operating Current | Coil Resistance | Operating Nominal | Power W | Max allowable Voltage | |
|--------------------|--------------------------------|---------------------|------------------------------|-----------------|-------------------|---------|--------------------------|--|
| V DC | V DO (max.) | V DC (min.) | mA (±10%) | mA (±10%) | | Minimum | V DC | |
| 6 | 4.8 | 0.6 | 150 | 40 | 0.9 | 0.58 | 6.6 | |
| 12 | 9.6 | 1.2 | 75 | 160 | 0.9 | 0.58 | 13.2 | |
| 24 | 19.2 | 2.4 | 37 | 640 | 0.9 | 0.58 | 26.4 | |
| 48 | 38.4 | 4.8 | 18.5 | 2,560 | 0.9 | 0.58 | 52.8 | |
| 110/120 | 88 | 11 | 10 | 13,400 | 0.9 | 0.58 | 121 | |

AC Types (50/60 Hz) @ 60 Hz, 20° C

| Nominal Voltage V AC | Pick-up Voltage V DC (max.) | Drop-out Voltage V DC (min.) | Nominal Operating Current mA (±10%) | Coil Resistance (±10%) | Operating Power VA | Max allowable Voltage V DC |
|----------------------------|--------------------------------|------------------------------------|---|---------------------------|-----------------------|----------------------------------|
| 6 | 4.8 | 1.2 | 220 | 10 | | 6.6 |
| 12 | 9.6 | 2.4 | 110 | 40 | Nominal 1.20 | 13.2 |
| 24 | 19.2 | 4.8 | 60 | 160 | Minimum | 26.4 |
| 48 | 38.4 | 9.6 | 30 | 650 | 0.77 | 52.8 |
| 110/120 | 88 | 22 | 13.5 / 14.5 | 3,400 | | 132 |
| 220/240 | 176 | 44 | 6.0 / 6.5 | 1,360 | | 264 |



GENERAL PURPOSE RELAY-TYPE RG2

GENERAL PURPOSE RELAY-TYPE RG2 R SERIES

INTRODUCTION:

Adam Tech RG2 Relays are small general purpose relays available in eight different contact formats with either AC or DC coils and are available with PCB or Solder terminals. These relays are ideal for applications such as industrial control equipment, office machines, and medical equipment

FEATURES:

Contact ratings up to 7 amps AC and DC coils available PCB & Solder Plug-in terminals

SPECIFICATIONS:

ELECTRICAL:

Contact arrangement: 1 to 4 Pole, Form A & C

Contact material: Silver Alloy Contact Rating (Resistive load): 1, 2 & 3 Pole: 7A @ 250V AC

7A @ 30V DC 4 Pole: 5A @ 250V AC 5A @ 30V DC

Max. Switching Voltage: 250V AC / 30V DC Max. Switching Power: 1540VA, 210W Contact resistance: 100 m Ω max. Initial

Insulation resistance: 1000 M Ω min. @ 500V DC

Dielectric withstanding voltage:

Between Coil & Contact: 1500V AC 50/60Hz for 1 min. Between Contacts: 1000V AC 50/60Hz for 1 min.

Operating time: 25 ms max. Release time: 25 ms max.

Electrical Life: 100,000 Operations (at rated load)

MECHANICAL:

Vibration resistance (Endurance): 1.0mm Double Amplitude 10-55Hz

Shock resistance: 10G min.

Mechanical Life: 10,000,000 Operations (no load)

TEMPERATURE RATING:

Ambient temperature: -45°C to +85°C

PACKAGING:

Anti-ESD plastic trays

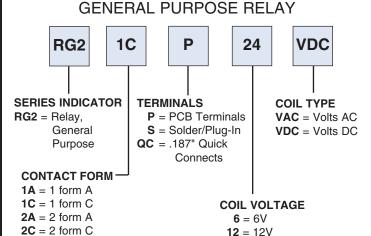
SAFETY AGENCY APPROVALS:

cUL Recognized File No. E305638



RG2-2C-S-24VDC

ORDERING INFORMATION



24 = 24V

48 = 48V

110 = 110V

120 = 120V **220** = 220V

240 = 240V

OPTION:

3A = 3 form A

3C = 3 form C

4A = 4 form A

4C = 4 form C

Add designator(s) to end of part number **F** = Top Mount flange

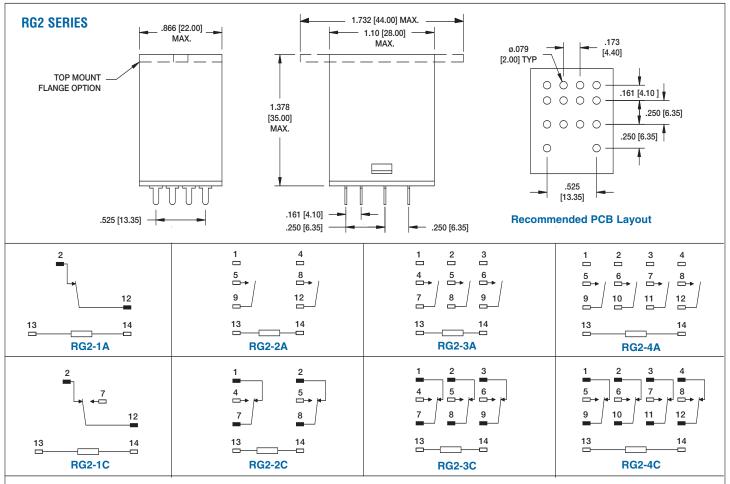






GENERAL PURPOSE RELAY-TYPE RG2

R SERIES



DC Types @ 20C

| 20 . ypoo C | . ypsc = 200 | | | | | | | | | | |
|--------------------|-----------------|---------------------|------------------------------|-----------------|-------------------|---------|--------------------------|--|--|--|--|
| Nominal Voltage | Pick-up Voltage | Drop-out Voltage | Nominal Operating Current | Coil Resistance | Operating Power W | | Max allowable Voltage | | | | |
| V DC | V DC (max.) | V DC (min.) | mA (±10%) | | | Minimum | V DC | | | | |
| 6 | 4.8 | 0.6 | 150 | 40 | 0.9 | 0.58 | 6.6 | | | | |
| 12 | 9.6 | 1.2 | 75 | 160 | 0.9 | 0.58 | 13.2 | | | | |
| 24 | 19.2 | 2.4 | 37 | 640 | 0.9 | 0.58 | 26.4 | | | | |
| 48 | 38.4 | 4.8 | 19 | 2560 | 0.9 | 0.58 | 52.8 | | | | |
| 110/120 | 88 | 11 | 8.2 | 13,400 | 1.0 | 0.64 | 132 | | | | |

AC Types (50/60 Hz) @ 60 Hz, 20C

| Nominal Voltage V AC | Pick-up Voltage V DC (max.) | Drop-out Voltage V DC (min.) | Nominal Operating Current mA (±10%) | Coil Resistance (±10%) | Operating Power VA | Max allowable Voltage V DC |
|----------------------------|--------------------------------|------------------------------------|---|---------------------------|-----------------------|----------------------------------|
| 6 | 4.8 | 1.2 | 200 | 10 | | 6.6 |
| 12 | 9.6 | 2.4 | 100 | 40 | Nominal 1.20 | 13.2 |
| 24 | 19.2 | 4.8 | 60 | 160 | Minimum | 26.4 |
| 48 | 38.4 | 9.6 | 30 | 650 | 0.77 | 52.8 |
| 110/120 | 96 | 22 | 13.5 / 14.5 | 3400 | | 132 |
| 220/240 | 176 | 44 | 6.0 / 6.5 | 1360 | | 264 |



POWER RELAY LARGE SIZE-TYPE RPL R SERIES

INTRODUCTION:

Adam Tech RPL relays are high power, modern relays, available in industry standard packages and can switch loads up to 30 amps. Available in both a PCB package and a combination PCB/Quick Connect terminal package, these relays are designed for applications such as Spa/Pool controls, HVAC, and large appliances.

FEATURES:

30 Amp Switching capability PCB and PCB/Top mount packages Industry Standard footprint

SPECIFICATIONS:

ELECTRICAL:

Contact arrangement: 1 Form A & 1 Form C

Contact material: Silver Alloy

Contact Rating (Resistive load): 30A @ 220V AC

30A @ 30V DC

Max. Switching Voltage: 220V AC / 30V DC Max. Switching Power: 6600VA / 900W Contact resistance: 50 m Ω max. Initial

Insulation resistance: 100 M Ω min. @ 500V DC

Dielectric withstanding voltage:

Between Coil & Contact: 2500V AC 50/60Hz for 1 min. Between Contacts: 1500V AC 50/60Hz for 1 min.

Operating time: 15 ms max. Release time: 10 ms max.

Electrical Life: 100,000 Operations (at rated load)

MECHANICAL:

Vibration resistance (Endurance): 1.5mm Double Amplitude 10-55Hz

Shock resistance: 10G min.

Mechanical Life: 10,000,000 Operations (no load)

TEMPERATURE RATING:

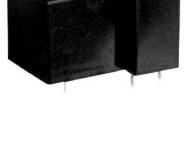
Ambient temperature: -55°C to +85°C

PACKAGING:

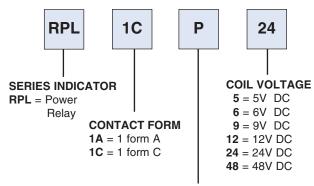
Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:

cUL Recognized File No. E305638



ORDERING INFORMATION POWER RELAY



TERMINALS

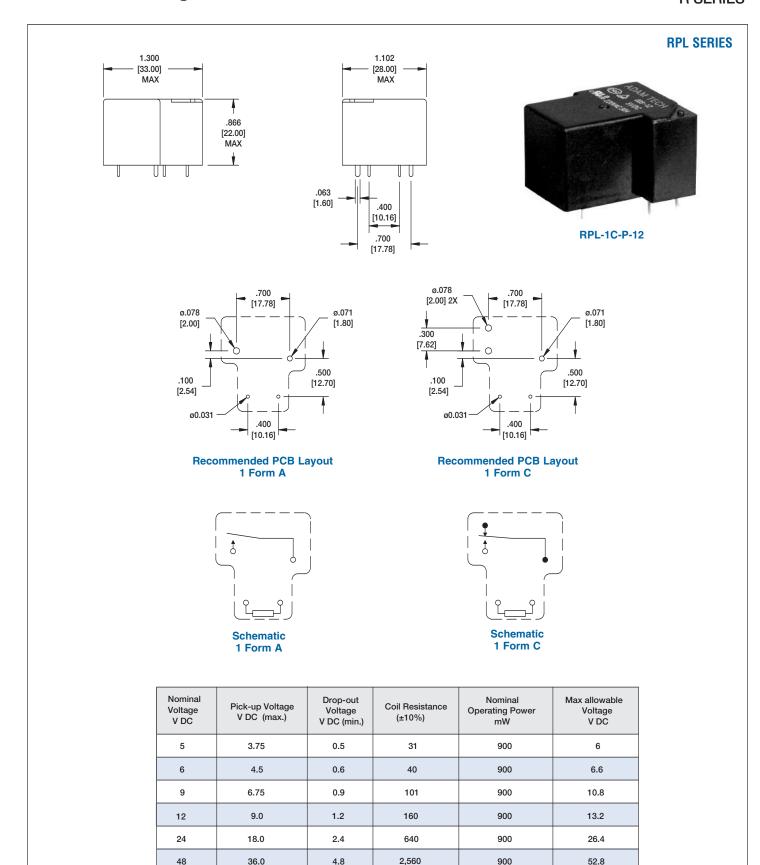
P = PCB Terminals onlyTCN = PCB Terminals and Top Contacts





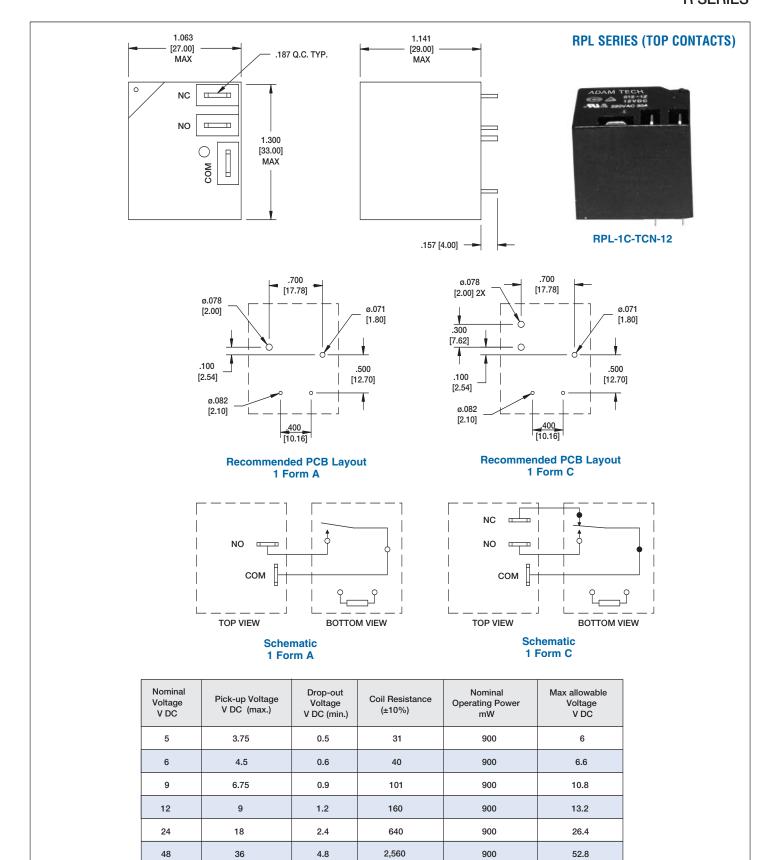


POWER RELAY LARGE SIZE-TYPE RPL R SERIES





POWER RELAY LARGE SIZE-TYPE RPL R SERIES



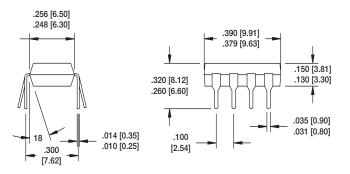


SOLID STATE RELAY

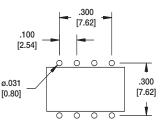
6 & 8 PIN DIP PACKAGES-TYPE SSR R SERIES

SSR1 SERIES SOLID STATE RELAY 6 Pin DIP .256 [6.50] .248 [6.30] SSR1A-350-120-35-6T .343 [8.70] .335 [8.50] .200 [5.08] .150 [3.81] .100 .320 [8.12] .130 [3.30] [2.54].260 [6.60] ø.031 .300 .035 [0.90] [7.62] [0.80] .031 [0.80] .014 [0.35] .100 .010 [0.25] [2.54] .300 [7.62] **Recommended PCB Layout**

SSR1 & SSR2 SERIES SOLID STATE RELAY 8 Pin DIP



SSR2A-350-120-25-8T



Recommended PCB Layout

INTRODUCTION:

Adam Tech's Solid State MOSFET controlled relays deliver fast, reliable, bounce free switching in small packages. The LED input with MOSFET output is ideal for applications requiring low power input to control larger loads providing extremely high isolation. They are ideal to replace reed relays in applications susceptible to EMI or vibration while offering the reliability of a Solid State design with extended life. Comprised of two components in one package this product allows designers to condense PCB space.

FEATURES:

This series is offered in both 6 & 8 in DIP packages. Typical applications are data communications equipment, computers, security devices, medical equipment and instrumentation.

| SOLID STATE RELAY PART NO. | Load Volts (V) | Load Current (mA) | On Resistance (Ohms) | Isolation (Vrms) | Input Current (mA) | Off State Leakage (mA) | Time On (m sec.) | Time Off (m sec.) | Dip Package |
|----------------------------|----------------------|-------------------------|----------------------------|---------------------|--------------------------|------------------------------|---------------------|----------------------|----------------|
| Contact Form 1a | | | | | | | | | |
| SSR1A-250-170-15-6T | 250 | 170 | 15 | 3,750 | 5 | 1 | 5 | 5 | 6 Pin |
| SSR1A-250-200-10-6T | 250 | 200 | 10 | 3,750 | 5 | 1 | 5 | 5 | 6 Pin |
| SSR1A-350-120-15-6T | 250 | 120 | 25 | 3,750 | 5 | 1 | 5 | 5 | 6 Pin |
| SSR1A-350-120-35-6T | 250 | 120 | 35 | 3,750 | 2 | 1 | 3 | 3 | 6 Pin |
| SSR1A-350-170-16-6T | 250 | 170 | 16 | 3,750 | 5 | 1 | 5 | 5 | 6 Pin |
| SSR1A-350-170-20-6T | 250 | 170 | 20 | 3,750 | 5 | 1 | 5 | 5 | 6 Pin |
| Contact Form 1b | | | | l | | | | | |
| SSR1B-350-120-35-6T | 350 | 120 | 35 | 3,750 | 5 | 1 | 3 | 3 | 6 Pin |
| Contact Form 2a | | | | | | | | | |
| SSR2A-250-170-15-8T | 250 | 170 | 15 | 3,750 | 5 | 1 | 5 | 5 | 8 Pin |
| SSR2A-350-120-25-8T | 350 | 120 | 25 | 3,750 | 5 | 1 | 5 | 5 | 8 Pin |
| Contact Form 1a1b | | | | | | | | | |
| SSR1A1B-250-150-20-8T | 250 | 150 | 20 | 3,750 | 5 | 1 | 5 | 5 | 8 Pin |
| SSR1A1B-350-120-25-8T | 350 | 120 | 25 | 2,500 | 5 | 1 | 1 | 1 | 8 Pin |
| SSR1A1B-350-120-35-8T | 350 | 120 | 35 | 3,750 | 5 | 1 | 5 | 5 | 8 Pin |