

45 Amp Miniature Automotive PCB Relay

PC822



FEATURES

- Miniature Design
- 1A, 1B and 1C Contact Forms Available
- Contact Switching Capacity up to 100 Amps
- 45 Amps Continuous Carrying Capacity
- -40°C to 125°C Operating Temperature
- US and European Footprints Available
- Open Frame, Sealed or Dust Cover Available
- Lead Free & RoHS Compliant
- Fully Automated Assembly

CONTACT RATINGS 14 VDC at 25°C

Contact Form	1 Form A (SPST-NO)	1 Form C (SPDT)	
	Normally Open	Normally Open	Normally Closed
Max Switching Current	Make 135 A ⁽¹⁾	Make 120 A ⁽¹⁾	Make 90 A ⁽¹⁾
	Break 45 A	Break 40 A	Break 30 A
Max Continuous Current	45 A @ 25°C	40 A @ 25°C	30 A @ 25°C
	35 A @ 85°C	30 A @ 85°C	20 A @ 85°C
Max Switching Voltage	75 VDC, 380 VAC		
Max. Switching Power	630 W, 3,600 VAC		
Minimum Load	0.1 A @ 6 VDC		

CHARACTERISTICS

Operate Time	5 msec max.
Release Time	3 msec max
Insulation Resistance	100 MΩ Min at 500VDC, 50%RH
Dielectric Strength	500 V 50 Hz Between Contacts
	750 V 50 Hz Between Contact and Coils
Shock Resistance	20 g, 11ms, functional; 200 g, destructive
Vibration Resistance	10 Hz - 40 Hz Double Amplitude 1.27 mm
Coil Power Consumption	1.9 W (6V, 9V Coil Voltages)
	1.6 W (12V, 18V, 24V Coil Voltages)

ORDERING INFORMATION

Example:	PC822	-1C	-12	S	-A	L	-X
Model:	PC822						
Contact Form:	1A (SPST-NO), 1B (SPST-NC), or 1C (SPDT)						
Coil Voltage:	6, 9, 12, 18, 24						
Enclosure:	Nil : Open Frame; S : Sealed; C : Dust Cover						
Footprint:	A : US (Narrow); A1 : US with pin 4 removed; E : European (Wide)						
Coil Sensitivity:	Nil : Standard Pull In; L : Low Pull In (See Coil Data Table)						
Contact Material:	Nil : AgSnOInO						
RoHS Compliant:	-X						

Box Quantity: 800; Inner Box: 200

CONTACT RATINGS 28 VDC at 25°C

Contact Form	1 Form A (SPST-NO)	1 Form C (SPDT)	
	Normally Open	Normally Open	Normally Closed
Max Switching Current	Make 67 A ⁽¹⁾	Make 60 A ⁽¹⁾	Make 45 A ⁽¹⁾
	Break 22.5 A	Break 20 A	Break 15 A
Max Continuous Current	22.5 A @ 25°C	20 A @ 25°C	15 A @ 25°C
	17.5 A @ 85°C	15 A @ 85°C	10 A @ 85°C
Max Switching Voltage	75 VDC, 380 VAC		
Max. Switching Power	630 W, 3,600 VAC		
Minimum Load	0.1 A @ 6 VDC		

CONTACT DATA

Material	AgSnOInO (Silver Tin Indium Oxide)	
Initial Contact Resistance	30 mΩ Max @ 0.1A, 6VDC	
Service Life	Electrical	1 x 10 ⁵ Operations
	Mechanical	1 x 10 ⁷ Operations

CHARACTERISTICS Continued

Solderability	255°C ± 2°C 3 s ± 0.5 s
Operating Temperature Range	-40 to 125°C
Storage Temperature Range	-40 to 155°C
Weight	Open: 19 grams; Enclosed: 21 grams

⁽¹⁾With current load applied for a maximum of 3 seconds at a maximum duty cycle of 10%.

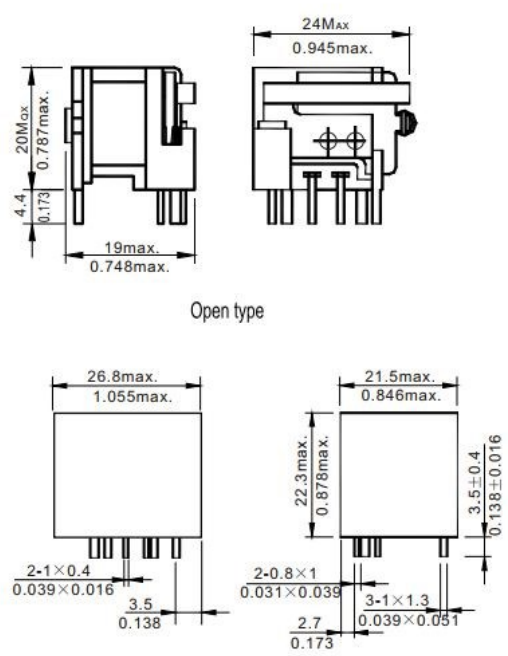
COIL DATA

Coil Voltage	Resistance Ohms ± 10%	Standard Must Operate Voltage Max. (VDC)	(L) Low Pull In Option Voltage Max. (VDC)	Must Release Voltage Min. (VDC)	Continuous Voltage Max. (VDC)	Coil Power (Watts)
6	19.0	4.2	3.3	0.6	7.8	1.9
9	42.6	6.3	5.1	0.9	11.7	1.9
12	90.0	8.4	6.8	1.2	15.6	1.6
18	202.5	12.6	10.2	1.8	23.4	1.6
24	360.0	16.8	13.9	2.4	31.2	1.6

NOTES:

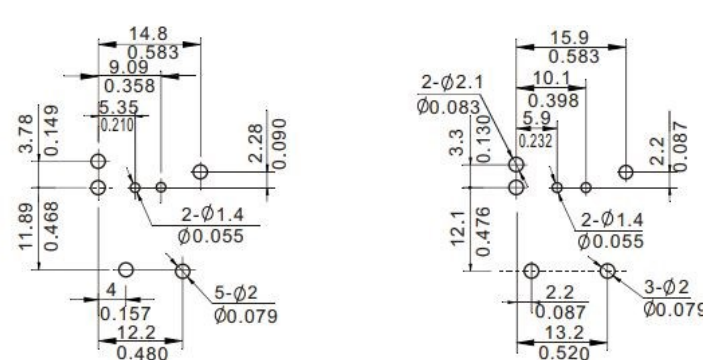
The use of any coil voltage less that the rated voltage will compromise the operation of the relays. Must Operate Voltage is listed for test purposes only and is not to be used as design criteria. Pickup and release voltages are for test purposes only and are not to be used as design criteria. Dimensions are in mm, Inches are listed for reference only.

Dimensions
mm / inch



Open type

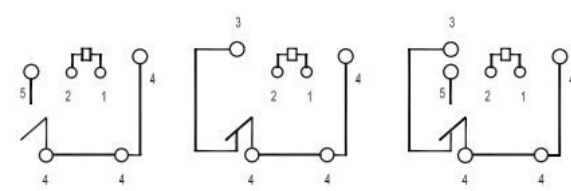
Dust cover type



U type

E type

Mounting (Bottom view)



1A

1B

1C

Wiring diagram(Bottom view)

Dimensions

NOTES 1).Dimensions are in millimeters.
2).Inch equivalents are given for general information only.