

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

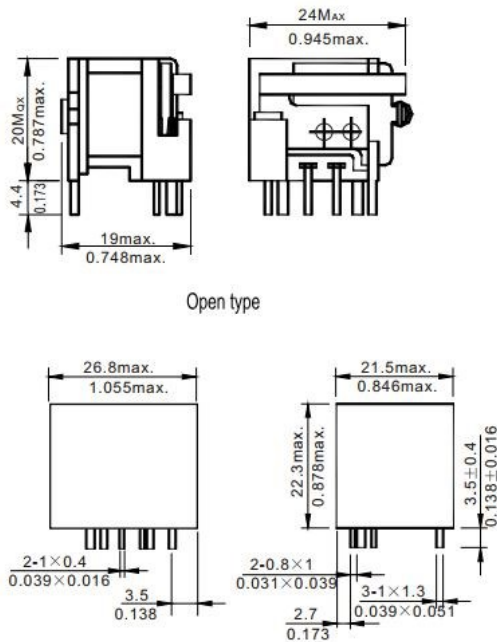
⁽¹⁾With current load applied for a maximum of 3 seconds at a maximum duty cycle of 10%.

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

Dimensions

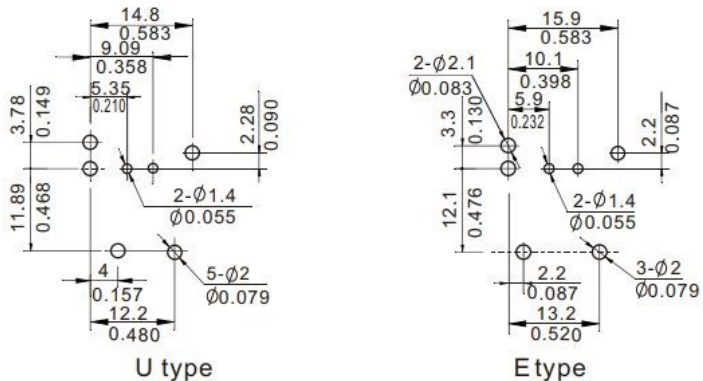
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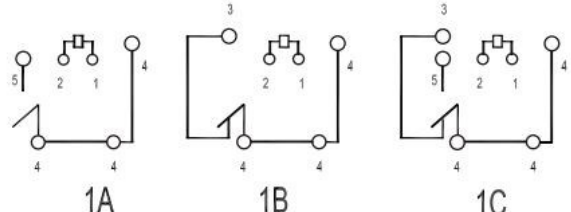
Open type

Dust cover type

Dimensions



Mounting (Bottom view)



Wiring diagram (Bottom view)

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