

# 54 Amp 6 Pin Form 1U Miniature Automotive Relay

**PC854**



## FEATURES

- High Performance Form 1U Automotive Relay
- Designed for High Inrush Currents
- High Current Capacity in a Small Package
- 54 Amps at 14 VDC for one Hour at 20°C
- Reflow Solderable
- -40 to 125°C High Heat Temperature Range
- RoHS - Lead Free

## Applications

- Lamp & Heater Control
- Motor Controls for Fans and Pumps
- Power Steering
- Vehicle Power Supplies, etc.

## CONTACT RATINGS 14 VDC @ 25°C

Contact Form	1 Form U
Max Switching Current Resistive, 10 Cycles	Make 100 A @ 14 VDC
	Break 60 A @ 14 VDC
Max Switching Power	560 Watts
Max Switching Voltage	16 VDC
Max Carrying Current	54 A @ 14VDC for 1 Hour @ 20°C
Contact Rating (Resistive)	2 x 20 A

## CHARACTERISTICS

Operate Time	< 10 ms
Release Time	< 5 ms
Insulation Resistance	100 MΩ min at 500VDC,
Dielectric Strength	500 VAC min. (for 1 Minute)
	500 VAC min. (for 1 Minute)
Shock Resistance	Function: 98 m/s <sup>2</sup> (10G)
	Survival: 980 m/s <sup>2</sup> (100G)
Power Consumption	0.64 Watts

## CROSS REFERENCE

NEC/Tokin EM-2U1 Series
Example: EM1-2U1 Crosses to PC854-1U-12C-X
NEC/Tokin EM-2U1S Series
Example: EM1-2U1S Crosses to PC854-1U-12S-X

## CONTACT DATA

Material	AgSnO <sub>2</sub>	
Initial Contact Resistance	< 20 mΩ	
Service Life	Electrical	10 <sup>5</sup>
	Mechanical	10 <sup>6</sup>

## CHARACTERISTICS Continued

Terminal Strength	10 N
Solderability	260°C for 5 Seconds
Operating Temperature	-40°C to 125°C
Relative Humidity	85% @ 20°C
Weight	9 Grams

## ORDERING INFORMATION

Example:	PC854	-1U	-12	S	-X
Model:	<b>PC854</b>				
Contact Form:	<b>1U</b>				
Mounting Version :	<b>Nil: Plug-In</b>				
Coil Voltage:	<b>12</b>				
Enclosure:	<b>C: Dust Cover; S: Sealed</b>				
RoHS Compliant:	<b>-X</b>				

Box Quantity: 500; Inner Box: 50

**COIL DATA**

Coil Voltage (VDC)		Resistance (Ohms ± 10%)	Pickup Voltage VDC (75% of rated voltage)	Release Voltage VDC (min) (5% of rated voltage)	Coil Power (W)
Rated	Max				
12	15.6	225	9	0.6	0.64

**NOTES:**

The use of any coil voltage less than 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 Inches/mm**

**Dimensions**
**mm**

Dimensions

Mounting (Bottom view)

Wiring diagram (Bottom view)

