

Distributor: **Electro-Stock** [www.electrostock.com](http://www.electrostock.com) Tel: 630-682-1542 Fax: 630-682-1562

## FEATURES:

- Large switching capacity up to 40A
- Small size and light weight
- PCB pin and quick connect mounting available
- Suitable for automobile and lamp accessories
- QS-9000, ISO-9002 Certified Manufacturing



26.0 x 26.0 x 24.5 (39.5) mm

## CONTACT DATA

|                           |  |
|---------------------------|--|
| Contact Arrangement       | 1A = SPST N.O.<br>1B = SPST N.C.<br>1C = SPDT<br>1U = SPST N.O. (2 terminals)                        |
| Contact Rating            | 1A: 40A @ 14VDC<br>1B: 30A @ 14VDC<br>1C: 40A @ 14VDC N.O. and 30A @ 14VDC N.C.<br>1U: 2x20A @ 14VDC |
| Contact Resistance        | < 30 milliohms initial   |
| Contact Material          | AgSnO <sub>2</sub>   |
| Maximum Switching Power   | 630W   |
| Maximum Switching Voltage | 75VDC  |
| Maximum Switching Current | 40A  |

## COIL DATA

| Coil Voltage VDC |      | Coil Resistance $\Omega \pm 10\%$ |       | Pick Up Voltage VDC (max) | Release Voltage VDC (min) | Coil Power W | Operate Time ms | Release Time ms |
|------------------|------|-----------------------------------|-------|---------------------------|---------------------------|--------------|-----------------|-----------------|
| Rated            | Max. | 1.6W                              | 1.9W  | 75% of rated voltage      | 10% of rated voltage      |              |                 |                 |
| 6                | 7.8  | 22.5                              | 19    | 4.2                       | 0.6                       | 1.6 or 1.9   | 7               | 5               |
| 12               | 15.6 | 90                                | 75.8  | 8.4                       | 1.2                       |              |                 |                 |
| 24               | 31.2 | 360                               | 303.2 | 16.8                      | 2.4                       |              |                 |                 |

## CAUTION:

1. The use of any coil voltage less than the rated coil voltage may compromise the operation of the relay.
2. Pickup and release voltages are for test purposes only and are not to be used as design criteria.
3. When testing, coil terminals should be connected if coil transient suppression is installed in relay.

## GENERAL DATA

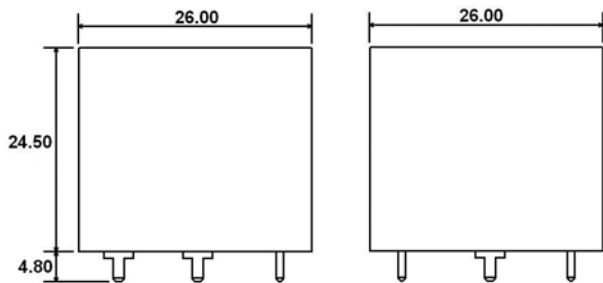
|                                      |                                     |
|--------------------------------------|-------------------------------------|
| Electrical Life @ rated load         | 100K cycles, typical                |
| Mechanical Life                      | 10M cycles, typical                 |
| Insulation Resistance                | 100M $\Omega$ min @ 500VDC          |
| Dielectric Strength, Coil to Contact | 750V rms min. @ sea level           |
| Contact to Contact                   | 500V rms min. @ sea level           |
| Shock Resistance                     | 147m/s <sup>2</sup> for 11ms        |
| Vibration Resistance                 | 1.5mm double amplitude 10-40Hz      |
| Terminal (Copper Alloy) Strength     | 8N (Quick Connect), 4N (PCB Pins)   |
| Operating Temperature                | -40 °C to + 85 °C                   |
| Storage Temperature                  | -40 °C to + 155 °C                  |
| Solderability                        | 230 °C $\pm$ 2 °C for 10 $\pm$ 0.5s |
| Weight                               | 31g                                 |

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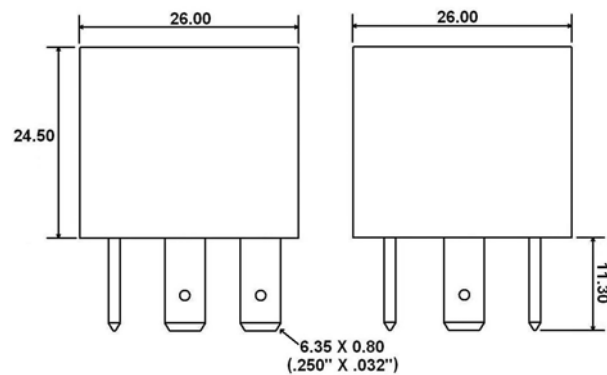
## ORDERING INFORMATION

|   |      |    |   |   |    |     |   |
|---|------|----|---|---|----|-----|---|
| <b>1. Series:</b>   | CTA2 | 1C | S | Q | 12 | 1.6 | Z |
| CTA2 standard<br>CTA2F with mounting flange<br>CTA2M with metal bracket   |      |    |   |   |    |     |   |
| <b>2. Contact Arrangement:</b>  |      |    |   |   |    |     |   |
| 1A = SPST N.O.<br>1B = SPST N.C.<br>1C = SPDT<br>1U = SPST N.O. (2 terminals)   |      |    |   |   |    |     |   |
| <b>3. Sealing Options:</b>  |      |    |   |   |    |     |   |
| S = Sealed<br>C = Dust Cover  |      |    |   |   |    |     |   |
| <b>4. Termination:</b>  |      |    |   |   |    |     |   |
| P = PCB Pins<br>Q = Quick Connect   |      |    |   |   |    |     |   |
| <b>5. Coil Voltage:</b>   |      |    |   |   |    |     |   |
| 6VDC<br>12VDC<br>24VDC  |      |    |   |   |    |     |   |
| <b>6. Coil Power:</b>   |      |    |   |   |    |     |   |
| 1.6 = 1.6W<br>1.9 = 1.9W  |      |    |   |   |    |     |   |
| <b>7. Coil Suppression:</b>   |      |    |   |   |    |     |   |
| Blank = Standard<br>D = Diode (1N4005) Cathode on "86" terminal<br>D1 = Diode (1N4004) Cathode on "86" Terminal<br>R = Resistor (680 Ohms)<br>2D = 2 diodes (1N4005)<br>DR = Diode & Resistor Cathode on "86" Terminal<br>(1N4005 & 680 Ohms) |      |    |   |   |    |     |   |
| ** Consult factory if other values are needed.  |      |    |   |   |    |     |   |
| <b>8. Contact Material:</b>   |      |    |   |   |    |     |   |
| Z = AgSnO <sub>2</sub>  |      |    |   |   |    |     |   |

## DIMENSIONS – CTA2 (Units = mm)



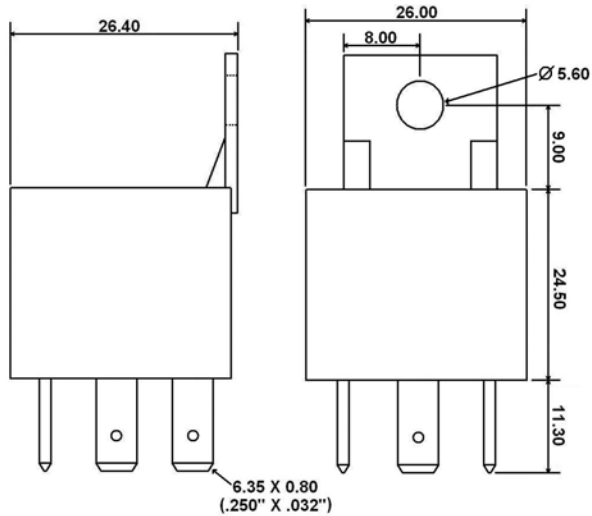
CTA2 with PC Pins



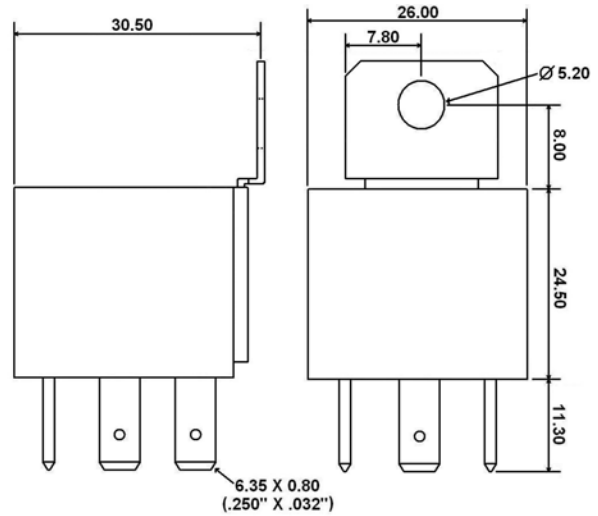
CTA2 with Quick Connects

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## DIMENSIONS – CTA3F & CTA2M (Units = mm)

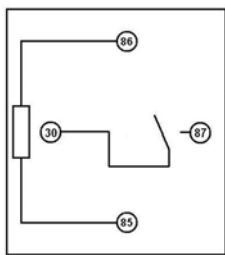


**CTA2F with Quick Connects**

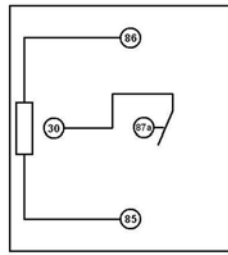


**CTA2M with Quick Connects**

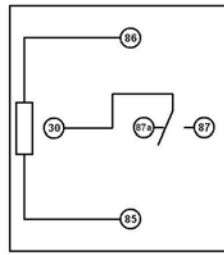
## SCHEMATICS, PC PIN DIMENSIONS, & PC LAYOUTS (BOTTOM VIEWS)



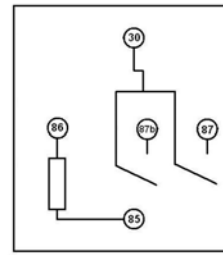
**1A**



**1B**



**1C**



**1U**

