

SONGLE RELAY

| | | |
|---|----------------------|-------------------|
|  | <p>RELAY ISO9002</p> | <p>SRA</p> |
|---|----------------------|-------------------|



1. MAIN FEATURES

- Subminiature, Light Weight
- Big Gap Type Available for Heavy Motor Load Switching
- Improved Resistance to Shock and Vibration
- High Contact Current Capacity
- Automotive-Oriented design

2. APPLICATIONS

- Interval Wipers, Door Lock, Window Lifter, Alarm System
- Wiper Motor Reverse, Automatic Mirror Adjustment
- Fuel Pump Control, Belt Tension Adjustment

3. ORDERING INFORMATION

| SRA | XX VDC | C | L |
|----------------|-------------------------|--------------|------------------|
| Model of relay | Nominal coil voltage | Contact form | Coil sensitivity |
| SRA | 03,05,06,09,12,18,24VDC | A:1 form A | L:0.60W |
| | | C:1 form C | D:0.80W |

4. RATING

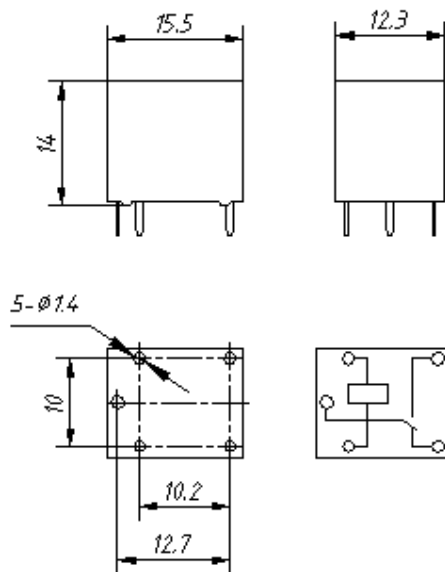
20A/125VAC 14VDC

UL/CUL FILE NUMBER: E167996 10A/125VAC 14VDC

5. DIMENSION (unit:mm)

DRILLING (unit:mm)

WIRING DIAGRAM



6. COIL DATA CHART (AT20°C)

| Coil Sensitivity | Coil Voltage Code | Nominal Voltage (VDC) | Nominal Current (mA) | Coil Resistance (Ω) $\pm 10\%$ | Power Consumption (W) | Pull-In Voltage (VDC) | Drop-Out Voltage (VDC) | Max-Allowable Voltage (VDC) |
|----------------------|-------------------|-----------------------|----------------------|---|-----------------------|-----------------------|------------------------|-----------------------------|
| High Sensitivity | 03 | 3 | 200 | 15 | abt. 0.6 | 75% Max. | 10% Min. | 110% |
| | 05 | 5 | 120 | 42 | | | | |
| | 06 | 6 | 100 | 60 | | | | |
| | 09 | 9 | 66.7 | 135 | | | | |
| | 12 | 12 | 50 | 240 | | | | |
| | 24 | 24 | 25 | 960 | | | | |
| Standard Sensitivity | 03 | 3 | 267 | 11.25 | abt. 0.8 | 75% Max. | 10% Min. | 110% |
| | 05 | 5 | 160 | 31.25 | | | | |
| | 06 | 6 | 133.4 | 45 | | | | |
| | 09 | 9 | 100 | 90 | | | | |
| | 12 | 12 | 66.7 | 180 | | | | |
| | 18 | 18 | 44.4 | 405 | | | | |
| | 24 | 24 | 33.4 | 720 | | | | |

7. CONTACT RATING

| Item | Type | SRA |
|---|------|--|
| Contact Capacity Resistive Load ($\cos\Phi=1$) | | N/C : 15A 14VDC , 10A 120VAC N/O : 20A 14VDC , 10A 120VAC |
| Inductive Load ($\cos\Phi=0.4$ L/R=7msec) | | 6A, 14VDC |
| Rated Carrying Current | | 25A/hr |
| Max. Allowable Voltage | | 250VAC 30VDC |
| Max. Allowable Current | | 20A |
| Contact Material | | AgSnO ₂ |

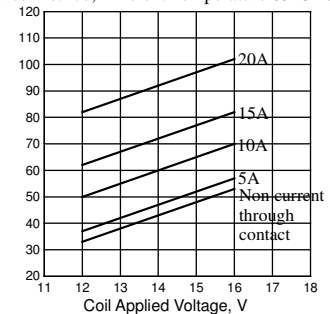
8. PERFORMANCE (at initial value)

| Item | Type | SRA |
|------------------------|------|--------------------------------------|
| Contact Resistance | | 100m Ω Max. |
| Operation Time | | 10msec |
| Release Time | | 5msec |
| Dielectric Strength | | |
| Between coil & contact | | 1500VAC 50/60Hz (1 minute) |
| Between contacts | | 1000VAC 50/60Hz (1 minute) |
| Surge Resistance | | 1500V |
| Insulation Resistance | | 100 M Ω Min. (at 500VDC) |
| Max. ON/OFF Switching | | |
| Mechanically | | 300 operation/min |
| Electrically | | 30 operation/min |
| Ambient Temperature | | -40°C to +80°C |
| Operating Humidity | | 45 to 85% RH |
| Coil Temperature Rise | | 40 deg. Max. (at rated coil voltage) |
| Vibration | | |
| Endurance | | 10 to 55HZ Double Amplitude 1.5mm |
| Error Operation | | |
| Shock | | |
| Endurance | | 100G Min. |
| Error Operation | | 10G Min. |
| Life Expectancy | | |
| Mechanically | | 10 ⁷ ops. Min. (no load) |
| Electrically | | 10 ⁵ ops. Min. |
| Weight | | abt. 6grs. |

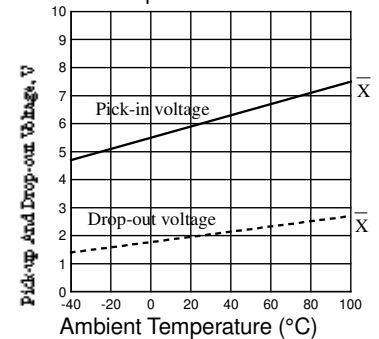
9. REFERENCE DATA

1 Coil Temperature Rise
Point Measured : Inside The Coil
Contact Current : Now Current Through Contact. 5A, 10A, 15A, 20A

Resistance Method, Ambient Temperature 85°C 185°C



2. Ambient Temperature Characteristics



3. Electrical Life Test (at rated load)

Quantity : n=6(NC=3, NO=3)

Load : Resistive Load (NC side 2A 14VDC

NO side 5A 14VDC)

Operating Frequency : ON 1.5sec. OFF 1sec.

Contact Welding : 0 time

Misconduct : 0 time

