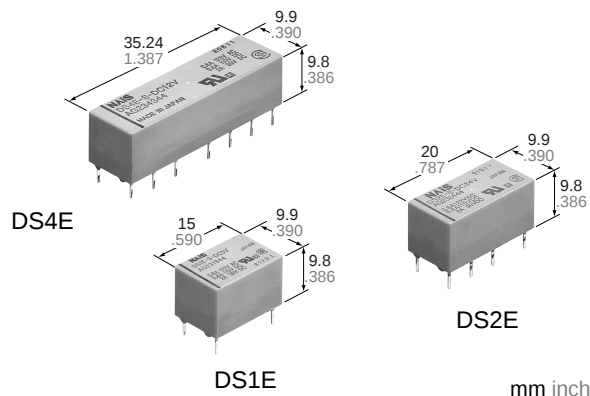


# NAIS

## HIGHLY SENSITIVE 1500 V FCC SURGE WITHSTANDING MINIATURE RELAY

# DS-RELAYS



### FEATURES

- High sensitivity: 200 mW pick-up power  
100 mW pick-up power types available
- Latching types available
- High switching capacity: 60 W, 125 V A
- High breakdown voltage: 1,500 V FCC surge between open contacts  
1,000 V AC between open contacts
- DIP-1C type can be used with 14 pin IC socket  
2C type can be used with 16 pin IC socket,  
4C type can be used with 2 sets of 14 pin IC sockets
- Gold-cap silver palladium types available for 2 Form C type
- Bifurcated contacts are standard

### SPECIFICATIONS

#### Contact

|                                                                  |                                    |                                                                      |
|------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------|
| Arrangement                                                      |                                    | 1 Form C, 2 Form C, 4 Form C                                         |
| Initial contact resistance, max.<br>(By voltage drop 6 V DC 1 A) |                                    | 50 mΩ                                                                |
| Contact material                                                 |                                    | Gold-clad silver                                                     |
| Rating<br>(resistive)                                            | Max. switching power               | 60 W, 125 VA                                                         |
|                                                                  | Max. switching voltage             | 220 V DC, 250 V AC                                                   |
|                                                                  | Max. switching current             | 2 A DC, AC                                                           |
|                                                                  | Max. carrying current              | 3 A DC, AC                                                           |
| Expected<br>life (min.<br>operations)                            | Mechanical<br>(at 600 cpm)         | 10 <sup>8</sup><br>(1 Form C 2 coil latching type: 10 <sup>7</sup> ) |
|                                                                  | Electrical<br>2 A 30 VDC resistive | 5×10 <sup>5</sup>                                                    |

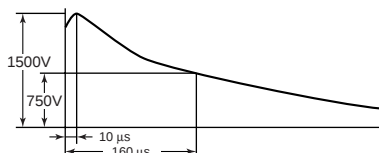
\* Gold capped silver-palladium contact also available for 2 Form C 10<sup>7</sup> operations at 0.1 A 50 V DC resistive

#### Coil (polarized) (at 20°C 68°F)

|           |                          |                             |                          |
|-----------|--------------------------|-----------------------------|--------------------------|
| M<br>type | Single<br>side<br>stable | Minimum operating power     | Approx. 200 mW           |
|           |                          | Nominal operating power     | Approx. 400 mW           |
|           | 1 coil<br>latching       | Minimum set and reset power | Approx. 90 mW            |
|           |                          | Nominal set and reset power | Approx. 180 mW           |
| S<br>type | 2 coil<br>latching       | Minimum set and reset power | Approx. 180 mW           |
|           |                          | Nominal set and reset power | Approx. 360 mW           |
|           | Single<br>side<br>stable | Minimum operating power     | Approx. 100 mW (128 mW)* |
|           |                          | Nominal operating power     | Approx. 200 mW           |
|           | 1 coil<br>latching       | Minimum set and reset power | Approx. 45 mW (58 mW)*   |
|           |                          | Nominal set and reset power | Approx. 90 mW            |
|           | 2 coil<br>latching       | Minimum set and reset power | Approx. 90 mW (115 mW)*  |
|           |                          | Nominal set and reset power | Approx. 180 mW           |

\* For 1 Form C high sensitive types.

FCC (Federal Communication Commission) requests following standard as Breakdown Voltage specification.



#### Characteristics (at 20°C 68°F)

|                                                                                                       |                           |                                                                                |               |
|-------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------|---------------|
| Max. operating speed                                                                                  |                           | 20 cpm at rated load<br>50 cps at low level load                               |               |
| Initial insulation resistance*1                                                                       |                           | Min. 100 MΩ (at 500 V DC)                                                      |               |
| Initial break-down voltage*2                                                                          | Type of relay             | (DS1-S type)                                                                   | (Other types) |
|                                                                                                       | Between open contacts     | 500 Vrms                                                                       | 1,000 Vrms    |
|                                                                                                       | Between contacts sets     | —                                                                              | 1,000 Vrms    |
|                                                                                                       | Between contacts and coil | 1,000 Vrms                                                                     | 1,500 Vrms    |
| FCC surge voltage between contacts and coil                                                           |                           | 1,500 V (Expect DS1-S type)                                                    |               |
| Operate time*3 (at nominal voltage)                                                                   |                           | Approx. 3 ms                                                                   |               |
| Release time (without diode)*3 (at nominal voltage)                                                   |                           | Approx. 2 ms                                                                   |               |
| Set time*3 (at nominal voltage)                                                                       |                           | Approx. 3 ms                                                                   |               |
| Reset time*3 (at nominal voltage)                                                                     |                           | Approx. 3 ms                                                                   |               |
| Temperature rise (at nominal voltage, Contact current: 2A)                                            |                           | Max. 65°C                                                                      |               |
| Shock resistance                                                                                      | Functional*4              | 1C, 2C:Min. 490 m/s <sup>2</sup> {50 G}<br>4C:Min. 294 m/s <sup>2</sup> {30 G} |               |
|                                                                                                       | Destructive*5             | Min. 980 m/s <sup>2</sup> {100 G}                                              |               |
| Vibration resistance                                                                                  | Functional*6              | 10 to 55 Hz<br>at double amplitude of 3.3 mm                                   |               |
|                                                                                                       | Destructive               | 10 to 55 Hz<br>at double amplitude of 5 mm                                     |               |
| Conditions for operation, transport and storage*7<br>(Not freezing and condensing at low temperature) | Ambient temp.             | -40°C to +70°C<br>-40°F to +158°F                                              |               |
|                                                                                                       | Humidity                  | 5 to 85% R.H.                                                                  |               |
| Unit weight                                                                                           | 1 Form C                  | Approx. 3.2g .11oz                                                             |               |
|                                                                                                       | 2 Form C                  | Approx. 4g .14oz                                                               |               |
|                                                                                                       | 4 Form C                  | Approx. 7g .25oz                                                               |               |

#### Remarks

- \* Specifications will vary with foreign standards certification ratings.
- \*1 Measurement at same location as "Initial breakdown voltage" section
- \*2 Detection current: 10 mA
- \*3 Excluding contact bounce time
- \*4 Half-wave pulse of sine wave: 11ms; detection time: 10μs
- \*5 Half-wave pulse of sine wave: 6ms
- \*6 Detection time: 10μs
- \*7 Refer to 5. Conditions for operation, transport and storage mentioned in AMBIENT ENVIRONMENT (Page 61)

## TYPICAL APPLICATIONS ORDERING INFORMATION

- Telecommunication equipment
- Office equipment
- Computer peripherals
- Security equipment
- Measuring instrumentation

| Ex DS <span style="border: 1px solid black; padding: 0 2px;">2</span> <span style="border: 1px solid black; padding: 0 2px;">E</span> — <span style="border: 1px solid black; padding: 0 2px;">M</span> <span style="border: 1px solid black; padding: 0 2px;">L2</span> — <span style="border: 1px solid black; padding: 0 2px;">DC 48 V</span> — <span style="border: 1px solid black; padding: 0 2px;">R</span> * |                        |                                                                        |                                                                      |                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------|
| Contact arrangement                                                                                                                                                                                                                                                                                                                                                                                                  | Classification of type | Sensitivity                                                            | Operating function                                                   | Coil voltage                     |
| 1: 1 Form C<br>2: 2 Form C<br>4: 4 Form C                                                                                                                                                                                                                                                                                                                                                                            | E: Amber sealed type   | M: 400 mW nominal operating power<br>S: 200 mW nominal operating power | Nil: Single side stable<br>L: 1 coil latching<br>L2: 2 coil latching | DC 1.5, 3, 5, 6, 9, 12, 24, 48 V |

\*Reverse polarity types available (add suffix-R). Standard packing: Carton: 50 pcs.; Case: 500 pcs.

## TYPES

### Single side stable

|                       | Nominal Voltage, V DC | Part No.      |               |               |
|-----------------------|-----------------------|---------------|---------------|---------------|
|                       |                       | 1 Form C      | 2 Form C      | 4 Form C      |
| M<br>(400 mW)<br>type | 1.5                   | DS1E-M-DC1.5V | DS2E-M-DC1.5V | DS4E-M-DC1.5V |
|                       | 3                     | DS1E-M-DC3V   | DS2E-M-DC3V   | DS4E-M-DC3V   |
|                       | 5                     | DS1E-M-DC5V   | DS2E-M-DC5V   | DS4E-M-DC5V   |
|                       | 6                     | DS1E-M-DC6V   | DS2E-M-DC6V   | DS4E-M-DC6V   |
|                       | 9                     | DS1E-M-DC9V   | DS2E-M-DC9V   | DS4E-M-DC9V   |
|                       | 12                    | DS1E-M-DC12V  | DS2E-M-DC12V  | DS4E-M-DC12V  |
|                       | 24                    | DS1E-M-DC24V  | DS2E-M-DC24V  | DS4E-M-DC24V  |
| S<br>(200 mW)<br>type | 48                    | DS1E-M-DC48V  | DS2E-M-DC48V  | DS4E-M-DC48V  |
|                       | 1.5                   | DS1E-S-DC1.5V | DS2E-S-DC1.5V | DS4E-S-DC1.5V |
|                       | 3                     | DS1E-S-DC3V   | DS2E-S-DC3V   | DS4E-S-DC3V   |
|                       | 5                     | DS1E-S-DC5V   | DS2E-S-DC5V   | DS4E-S-DC5V   |
|                       | 6                     | DS1E-S-DC6V   | DS2E-S-DC6V   | DS4E-S-DC6V   |
|                       | 9                     | DS1E-S-DC9V   | DS2E-S-DC9V   | DS4E-S-DC9V   |
|                       | 12                    | DS1E-S-DC12V  | DS2E-S-DC12V  | DS4E-S-DC12V  |
|                       | 24                    | DS1E-S-DC24V  | DS2E-S-DC24V  | DS4E-S-DC24V  |
|                       | 48                    | DS1E-S-DC48V  | DS2E-S-DC48V  | DS4E-S-DC48V  |

### 1 coil latching

|                       | Nominal Voltage, V DC | Part No.       |                |                |
|-----------------------|-----------------------|----------------|----------------|----------------|
|                       |                       | 1 Form C       | 2 Form C       | 4 Form C       |
| M<br>(180 mW)<br>type | 1.5                   | DS1E-ML-DC1.5V | DS2E-ML-DC1.5V | DS4E-ML-DC1.5V |
|                       | 3                     | DS1E-ML-DC3V   | DS2E-ML-DC3V   | DS4E-ML-DC3V   |
|                       | 5                     | DS1E-ML-DC5V   | DS2E-ML-DC5V   | DS4E-ML-DC5V   |
|                       | 6                     | DS1E-ML-DC6V   | DS2E-ML-DC6V   | DS4E-ML-DC6V   |
|                       | 9                     | DS1E-ML-DC9V   | DS2E-ML-DC9V   | DS4E-ML-DC9V   |
|                       | 12                    | DS1E-ML-DC12V  | DS2E-ML-DC12V  | DS4E-ML-DC12V  |
|                       | 24                    | DS1E-ML-DC24V  | DS2E-ML-DC24V  | DS4E-ML-DC24V  |
| S<br>(90 mW)<br>type  | 48                    | DS1E-ML-DC48V  | DS2E-ML-DC48V  | DS4E-ML-DC48V  |
|                       | 1.5                   | DS1E-SL-DC1.5V | DS2E-SL-DC1.5V | DS4E-SL-DC1.5V |
|                       | 3                     | DS1E-SL-DC3V   | DS2E-SL-DC3V   | DS4E-SL-DC3V   |
|                       | 5                     | DS1E-SL-DC5V   | DS2E-SL-DC5V   | DS4E-SL-DC5V   |
|                       | 6                     | DS1E-SL-DC6V   | DS2E-SL-DC6V   | DS4E-SL-DC6V   |
|                       | 9                     | DS1E-SL-DC9V   | DS2E-SL-DC9V   | DS4E-SL-DC9V   |
|                       | 12                    | DS1E-SL-DC12V  | DS2E-SL-DC12V  | DS4E-SL-DC12V  |
|                       | 24                    | DS1E-SL-DC24V  | DS2E-SL-DC24V  | DS4E-SL-DC24V  |
|                       | 48                    | DS1E-SL-DC48V  | DS2E-SL-DC48V  | DS4E-SL-DC48V  |

### 2 coil latching

|                       | Nominal Voltage, V DC | Part No.        |                 |                 |
|-----------------------|-----------------------|-----------------|-----------------|-----------------|
|                       |                       | 1 Form C        | 2 Form C        | 4 Form C        |
| M<br>(360 mW)<br>type | 1.5                   | DS1E-ML2-DC1.5V | DS2E-ML2-DC1.5V | DS4E-ML2-DC1.5V |
|                       | 3                     | DS1E-ML2-DC3V   | DS2E-ML2-DC3V   | DS4E-ML2-DC3V   |
|                       | 5                     | DS1E-ML2-DC5V   | DS2E-ML2-DC5V   | DS4E-ML2-DC5V   |
|                       | 6                     | DS1E-ML2-DC6V   | DS2E-ML2-DC6V   | DS4E-ML2-DC6V   |
|                       | 9                     | DS1E-ML2-DC9V   | DS2E-ML2-DC9V   | DS4E-ML2-DC9V   |
|                       | 12                    | DS1E-ML2-DC12V  | DS2E-ML2-DC12V  | DS4E-ML2-DC12V  |
|                       | 24                    | DS1E-ML2-DC24V  | DS2E-ML2-DC24V  | DS4E-ML2-DC24V  |
| S<br>(180 mW)<br>type | 48                    | DS1E-ML2-DC48V  | DS2E-ML2-DC48V  | DS4E-ML2-DC48V  |
|                       | 1.5                   | DS1E-SL2-DC1.5V | DS2E-SL2-DC1.5V | DS4E-SL2-DC1.5V |
|                       | 3                     | DS1E-SL2-DC3V   | DS2E-SL2-DC3V   | DS4E-SL2-DC3V   |
|                       | 5                     | DS1E-SL2-DC5V   | DS2E-SL2-DC5V   | DS4E-SL2-DC5V   |
|                       | 6                     | DS1E-SL2-DC6V   | DS2E-SL2-DC6V   | DS4E-SL2-DC6V   |
|                       | 9                     | DS1E-SL2-DC9V   | DS2E-SL2-DC9V   | DS4E-SL2-DC9V   |
|                       | 12                    | DS1E-SL2-DC12V  | DS2E-SL2-DC12V  | DS4E-SL2-DC12V  |
|                       | 24                    | DS1E-SL2-DC24V  | DS2E-SL2-DC24V  | DS4E-SL2-DC24V  |
|                       | 48                    | DS1E-SL2-DC48V  | DS2E-SL2-DC48V  | DS4E-SL2-DC48V  |

#### Notes:

1. Reverse polarity types available (add suffix-R).
2. Standard packing: carton: 50 pcs.; case: 500 pcs.

COIL DATA (at 20°C 68°F)

Single side stable

|        | Nominal voltage, V DC | Pick-up voltage, V DC (max.) |             | Drop-out voltage, V DC (min.) | Coil resistance, Ω (±10%) | Maximum allowable, V DC (at 50°C 122°F) |             |
|--------|-----------------------|------------------------------|-------------|-------------------------------|---------------------------|-----------------------------------------|-------------|
|        |                       | 1 Form C                     | 2, 4 Form C |                               |                           | 1 Form C                                | 2, 4 Form C |
| M type | 1.5                   | 1.05                         | 1.05        | 0.15                          | 5.63                      | 1.8                                     | 2.25        |
|        | 3                     | 2.1                          | 2.1         | 0.3                           | 22.5                      | 3.6                                     | 4.5         |
|        | 5                     | 3.5                          | 3.5         | 0.5                           | 62.5                      | 6                                       | 7.5         |
|        | 6                     | 4.2                          | 4.2         | 0.6                           | 90                        | 7.2                                     | 9           |
|        | 9                     | 6.3                          | 6.3         | 0.9                           | 203                       | 10.8                                    | 13.5        |
|        | 12                    | 8.4                          | 8.4         | 1.2                           | 360                       | 14.4                                    | 18          |
|        | 24                    | 16.8                         | 16.8        | 2.4                           | 1440                      | 28.8                                    | 36          |
| S type | 48                    | 33.6                         | 33.6        | 4.8                           | 5760                      | 57.6                                    | 72          |
|        | 1.5                   | 1.2                          | 1.05        | 0.15                          | 11.3                      | 2.4                                     | 3           |
|        | 3                     | 2.4                          | 2.1         | 0.3                           | 45                        | 4.8                                     | 6           |
|        | 5                     | 4.0                          | 3.5         | 0.5                           | 125                       | 8.0                                     | 10          |
|        | 6                     | 4.8                          | 4.2         | 0.6                           | 180                       | 9.6                                     | 12          |
|        | 9                     | 7.2                          | 6.3         | 0.9                           | 405                       | 14.4                                    | 18          |
|        | 12                    | 9.6                          | 8.4         | 1.2                           | 720                       | 19.2                                    | 24          |
|        | 24                    | 19.2                         | 16.8        | 2.4                           | 2880                      | 28.4                                    | 48          |
|        | 48                    | 38.6                         | 33.6        | 4.8                           | 11520                     | 76.8                                    | 96          |

1 coil latching

|        | Nominal voltage, V DC | Reset Set, V DC (max.) |             | Coil resistance, Ω (±10%) | Maximum allowable, V DC (at 50°C 122°F) |             |
|--------|-----------------------|------------------------|-------------|---------------------------|-----------------------------------------|-------------|
|        |                       | 1 Form C               | 2, 4 Form C |                           | 1 Form C                                | 2, 4 Form C |
| M type | 1.5                   | 1.05                   | 1.05        | 12.5                      | 1.8                                     | 2.25        |
|        | 3                     | 2.1                    | 2.1         | 50                        | 3.6                                     | 4.5         |
|        | 5                     | 3.5                    | 3.5         | 139                       | 6                                       | 7.5         |
|        | 6                     | 4.2                    | 4.2         | 200                       | 7.2                                     | 9           |
|        | 9                     | 6.3                    | 6.3         | 450                       | 10.8                                    | 13.5        |
|        | 12                    | 8.4                    | 8.4         | 800                       | 14.4                                    | 18          |
|        | 24                    | 16.8                   | 16.8        | 3200                      | 28.8                                    | 36          |
| S type | 48                    | 33.6                   | 33.6        | 12800                     | 57.6                                    | 72          |
|        | 1.5                   | 1.2                    | 1.05        | 25                        | 2.4                                     | 3           |
|        | 3                     | 2.4                    | 2.1         | 100                       | 4.8                                     | 6           |
|        | 5                     | 4.0                    | 3.5         | 278                       | 8.0                                     | 10          |
|        | 6                     | 4.8                    | 4.2         | 400                       | 9.6                                     | 12          |
|        | 9                     | 7.2                    | 6.3         | 900                       | 14.4                                    | 18          |
|        | 12                    | 9.6                    | 8.4         | 1600                      | 19.2                                    | 24          |
|        | 24                    | 19.2                   | 16.8        | 6400                      | 38.4                                    | 48          |
|        | 48                    | 38.4                   | 33.6        | 25600                     | 76.8                                    | 96          |

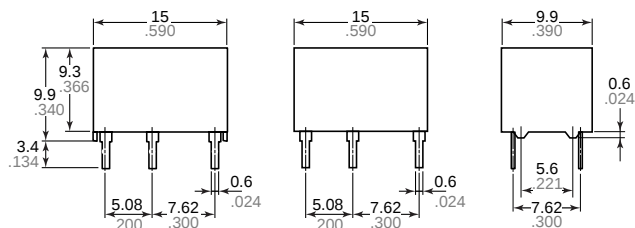
2 coil latching

|        | Nominal voltage, V DC | Reset Set, V DC (max.) |            | Coil resistance, Ω (±10%) |         | Maximum allowable, V DC (at 50°C 122°F) |            |
|--------|-----------------------|------------------------|------------|---------------------------|---------|-----------------------------------------|------------|
|        |                       | 1 Form C               | 2,4 Form C | Coil I                    | Coil II | 1 Form C                                | 2,4 Form C |
| M type | 1.5                   | 1.05                   | 1.05       | 6.25                      |         | 1.8                                     | 2.25       |
|        | 3                     | 2.1                    | 2.1        | 25                        |         | 3.6                                     | 4.5        |
|        | 5                     | 3.5                    | 3.5        | 69.4                      |         | 6                                       | 7.5        |
|        | 6                     | 4.2                    | 4.2        | 100                       |         | 7.2                                     | 9          |
|        | 9                     | 6.3                    | 6.3        | 225                       |         | 10.8                                    | 13.5       |
|        | 12                    | 8.4                    | 8.4        | 400                       |         | 14.4                                    | 18         |
|        | 24                    | 16.8                   | 16.8       | 1600                      |         | 28.8                                    | 36         |
| S type | 48                    | 33.6                   | 33.6       | 6400                      |         | 57.6                                    | 72         |
|        | 1.5                   | 1.2                    | 1.05       | 12.5                      |         | 2.4                                     | 3          |
|        | 3                     | 2.4                    | 2.1        | 50                        |         | 4.8                                     | 6          |
|        | 5                     | 4.0                    | 3.5        | 139                       |         | 8.0                                     | 10         |
|        | 6                     | 4.8                    | 4.2        | 200                       |         | 9.6                                     | 12         |
|        | 9                     | 7.2                    | 6.3        | 450                       |         | 14.4                                    | 18         |
|        | 12                    | 9.6                    | 8.4        | 800                       |         | 19.2                                    | 24         |
|        | 24                    | 19.2                   | 16.8       | 3200                      |         | 38.4                                    | 48         |
|        | 48                    | 38.4                   | 33.6       | 12800                     |         | 76.8                                    | 96         |

## DIMENSIONS

### 1 Form C

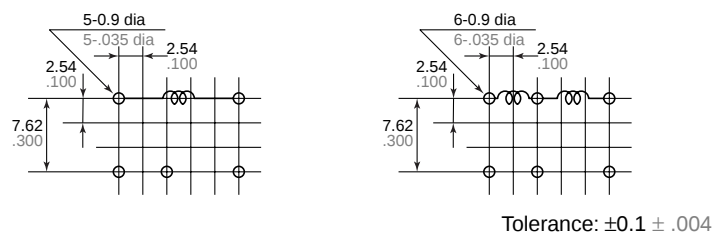
Single side stable, 1 coil latching, 2 coil latching



General tolerance:  $\pm 0.3 \pm .012$

PC board pattern (Copper-side view)

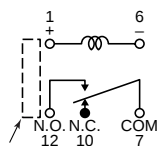
Single side stable, 1 coil latching 2 coil latching



Schematic (Bottom view)

Single side stable

Deenergized condition



• A polarity bar showing the relay direction can replace the schematic.

1 coil latching

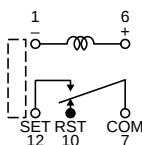


Diagram shows the "reset" position when terminals 1 and 6 are energized.

Energize with reverse polarity to transfer contacts.

2 coil latching

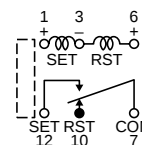
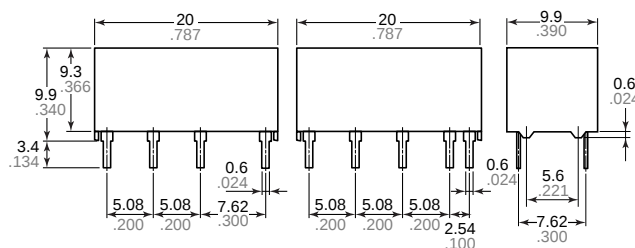


Diagram shows the "reset" position when terminals 3 and 6 are energized.

Energize terminals 1 and 3 to transfer contacts.

### 2 Form C

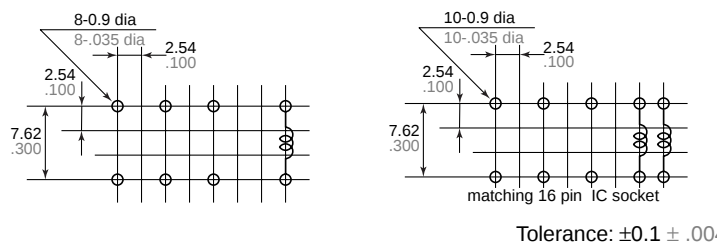
Single side stable, 1 coil latching, 2 coil latching



General tolerance:  $\pm 0.3 \pm .012$

PC board pattern (Copper-side view)

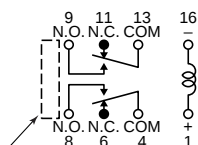
Single side stable, 1 coil latching 2 coil latching



Schematic (Bottom view)

Single side stable

Deenergized condition



• A polarity bar showing the relay direction can replace the schematic.

1 coil latching

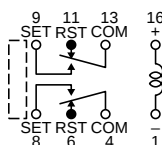


Diagram shows the "reset" position when terminals 1 and 16 are energized.

Energize with reverse polarity to transfer contacts.

2 coil latching

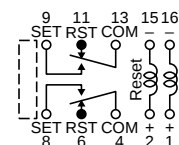
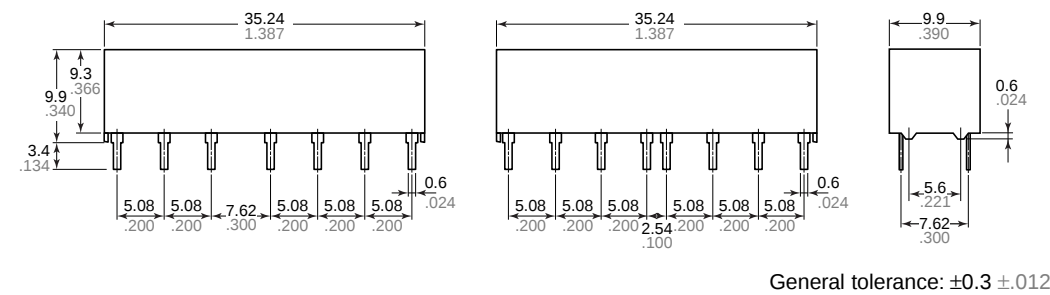


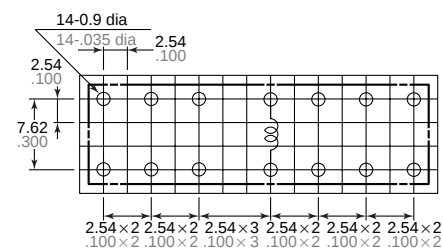
Diagram shows the "reset" position when terminals 2 and 15 are energized.

Energize terminals 1 and 16 to transfer contacts.

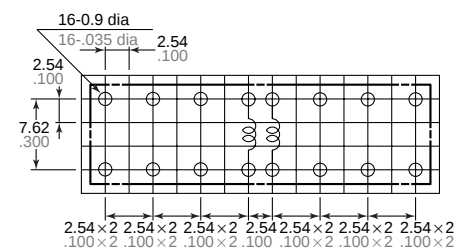
Single side stable, 1 coil latching, 2 coil latching



PC board pattern (Copper-side view)  
Single side stable, 1 coil latching

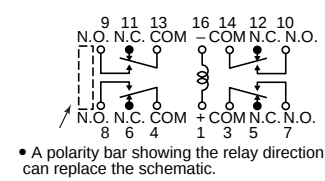


2 coil latching



Tolerance:  $\pm 0.1 \pm .004$

Schematic (Bottom view)  
Single side stable  
Deenergized condition



1 coil latching

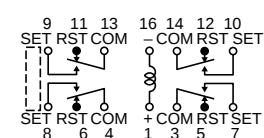


Diagram shows the "reset" position when terminals 1 and 16 are energized.  
Energize with reverse polarity to transfer contacts.

2 coil latching

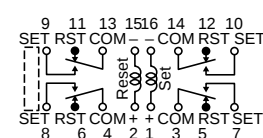
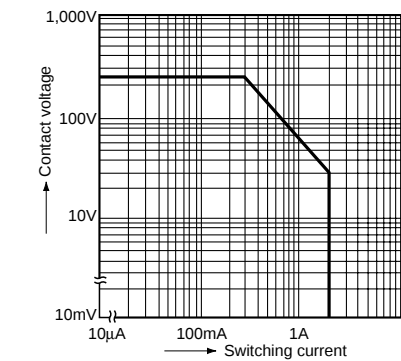


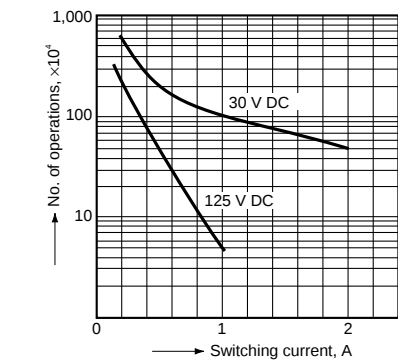
Diagram shows the "reset" position when terminals 2 and 15 are energized.  
Energize terminals 1 and 16 to transfer contacts.

REFERENCE DATA

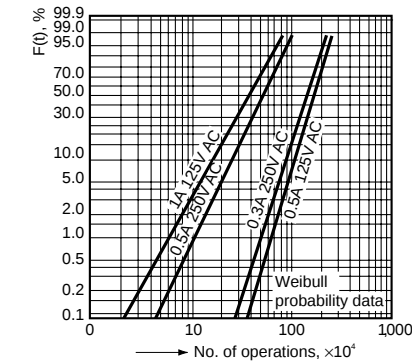
1. Maximum switching capacity



2. Life curve (Resistive load)



3. Contact reliability for AC loads  
Sample: DS2E-M-DC24V 10 pcs.  
Cycle rate: 20 cpm.  
Detection level: 200 mΩ

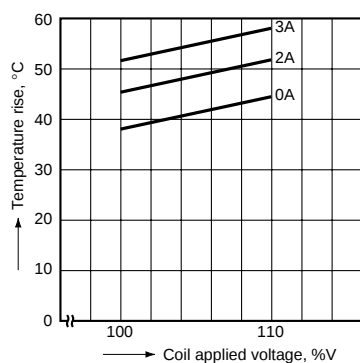


## 4-(1). Coil temperature rise

(2 Form C single side stable type)

Point measured: Inside the coil

Ambient temperature: 18° to 19°C 64° to 66°F

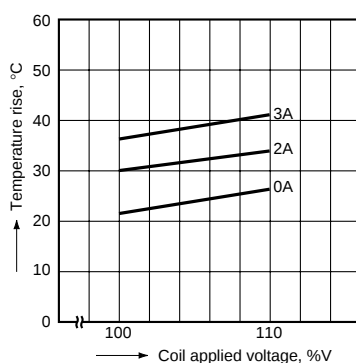


## 4-(2). Coil temperature rise

(4 Form C single side stable type)

Point measured: Inside the coil

Ambient temperature: 17° to 18°C 63° to 64°F

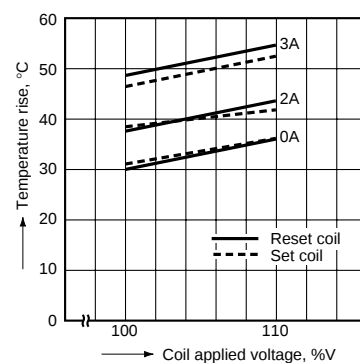


## 4-(3). Coil temperature rise

(2 Form C 2 coil latching type)

Point measured: Inside the coil

Ambient temperature: 20° to 21°C 68° to 70°F

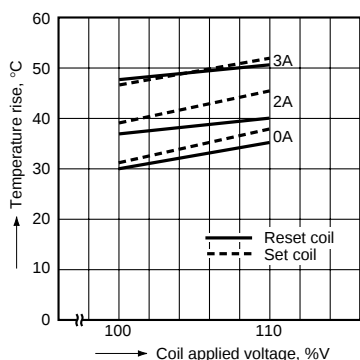


## 4-(4). Coil temperature rise

(4 Form C 2 coil latching type)

Point measured: Inside the coil

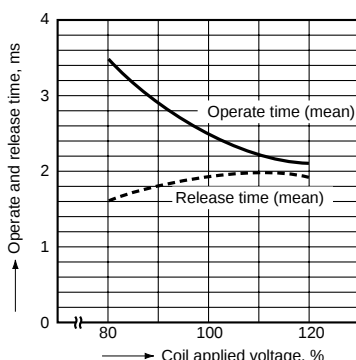
Ambient temperature: 20°C 68°F



## 5. Operate and release time characteristics

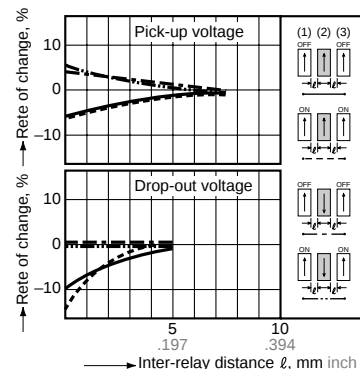
(2 Form C single side stable type)

Test condition: Without diode connected to coil in parallel



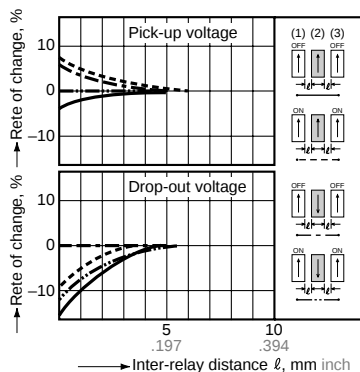
## 6-(1). Influence of adjacent mounting

(1 Form C)



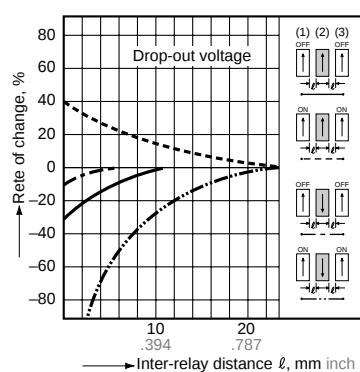
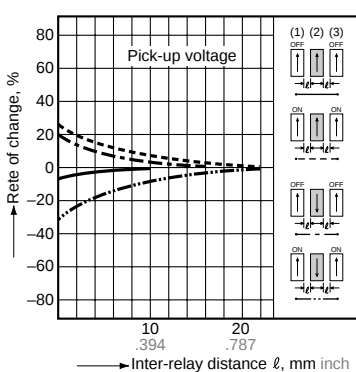
## 6-(2). Influence of adjacent mounting

(2 Form C)



## 6-(3). Influence of adjacent mounting

(4 Form C)



**For Cautions for Use, see Relay Technical Information**