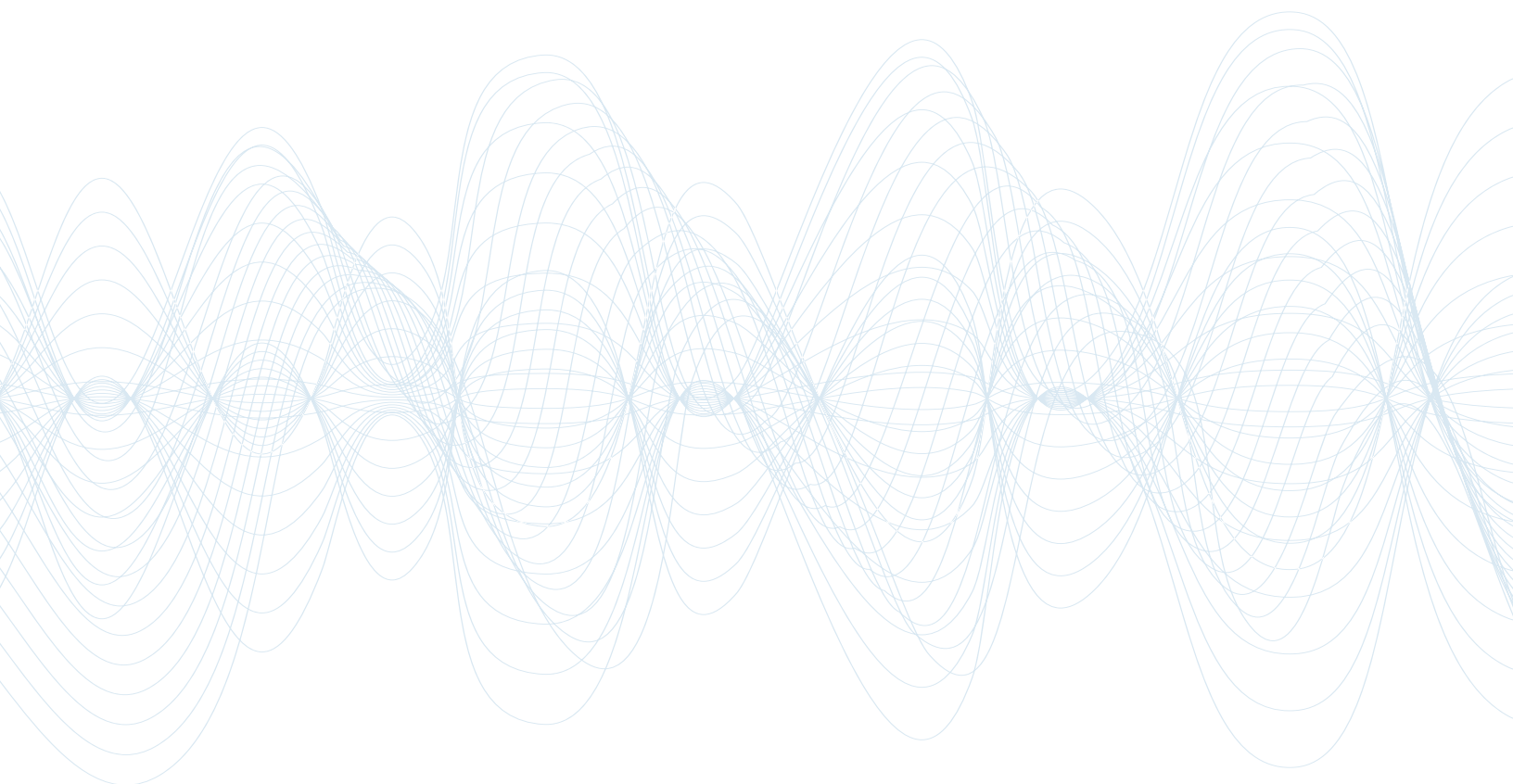


SP3T-SP14T MULTIPOSITION COAXIAL SWITCH





- DC-18 GHz
- DC-26.5 GHz
- DC-40 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|-------------------------------|--------------------|--------------------|
| DC-4 | 1.20 | 70 | 0.20 |
| 4-8 | 1.30 | 65 | 0.30 |
| 8-12.4 | 1.40 | 65 | 0.40 |
| 12.4-18 | 1.50 | 60 | 0.50 |
| *18-26.5 | 1.80 | 50 | 0.80 |
| DC-40 | Consult with factory for data | | |

*Performance varies depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 355 mA
- 24 Vdc 200 mA
- 28 Vdc 170 mA

Switching Time:

20 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

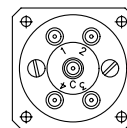
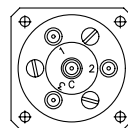
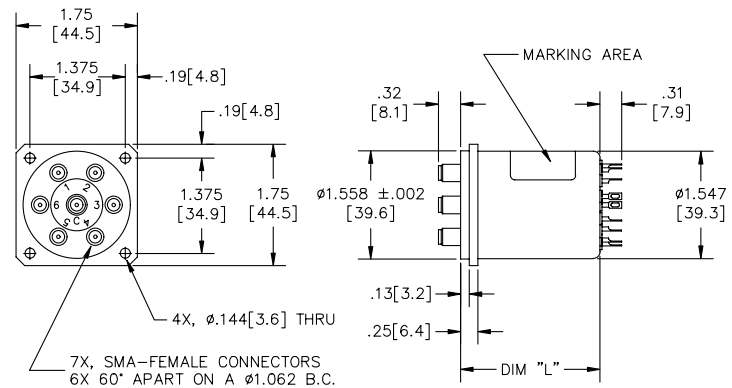
50G, 1/2 Sine, 11 ms

Nominal Weight*:

4.0 oz. (113 g.)

* Performance and weight varies depending on selected options.

Mechanical



| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 1.41 [35.8] | 5X5-5X08 | 1 |
| 1.90 [48.3] | 5X5-5X0822 | 1 |
| 1.70 [43.2] | 5X5-5X0802A | 2 |
| 2.10 [53.3] | 5X5-5X0822A | 2 |

565-530822 Shown

For Electrical Schematic, see page # 3-20

Part Number Selector

535 J - 5 2 08 02 A - ROHS

| Family | Special Options | Actuator | Coil Voltage | Connectors | Indicators | Circuit Options |
|------------|-------------------------------|--------------------------------------|--------------|-----------------|--|------------------|
| 535 = SP3T | C = Mounting Bracket | 5 = Normally Open | 2 = 12 Vdc | 07 = BMA Female | 02 = No Indicators*** | A = TTL High |
| 545 = SP4T | J = 9 or 15 Pin 'D' Connector | 9 = Normally Open Suppression Diodes | 3 = 28 Vdc | 08 = SMA Female | 22 = SPST Indicators | E = BCD Decoding |
| 565 = SP6T | K = 26.5 GHz | 2 = Failsafe ** | 8 = 24 Vdc | 11 = 2.9 mm (K) | | L = TTL Low |
| | P = Power Plug | * Only available with N.O. | 9 = 15 Vdc | | *** Declared only with Circuit Options | |
| | R = (-) Com* | Suppression Diodes | | | | |
| | S = Epoxy Seal | ** Only available options are: | | | | |
| | T = -55° to +85° C | 535-2308 | | | | |
| | W = Low PIM | 545-2308 | | | | |
| | Y = 40 GHz | 565-2308 | | | | |

Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.

RF Characteristics



- DC-18 GHz
- DC-26.5 GHz
- Low/Medium Power
- 1M Life Cycles

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 80 | 0.20 |
| 4-8 | 1.30 | 70 | 0.30 |
| 8-12.4 | 1.40 | 65 | 0.40 |
| 12.4-18 | 1.50 | 60 | 0.50 |
| *18-26.5 | 1.80 | 55 | 0.80 |

*Performance varies depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 365 mA
- 28 Vdc 210 mA
- 28 Vdc 170 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

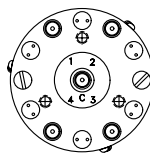
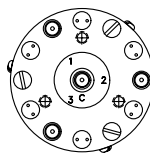
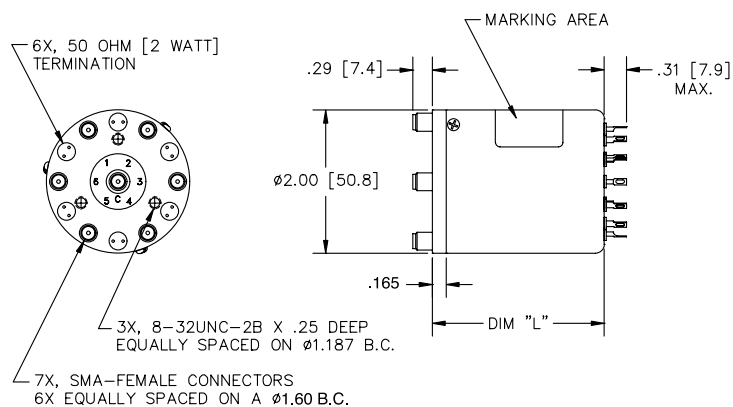
50G, 1/2 Sine, 11 ms

Nominal Weight*:

10.0 oz. (284 g.)

* Performance and weight varies depending on selected options.

Mechanical

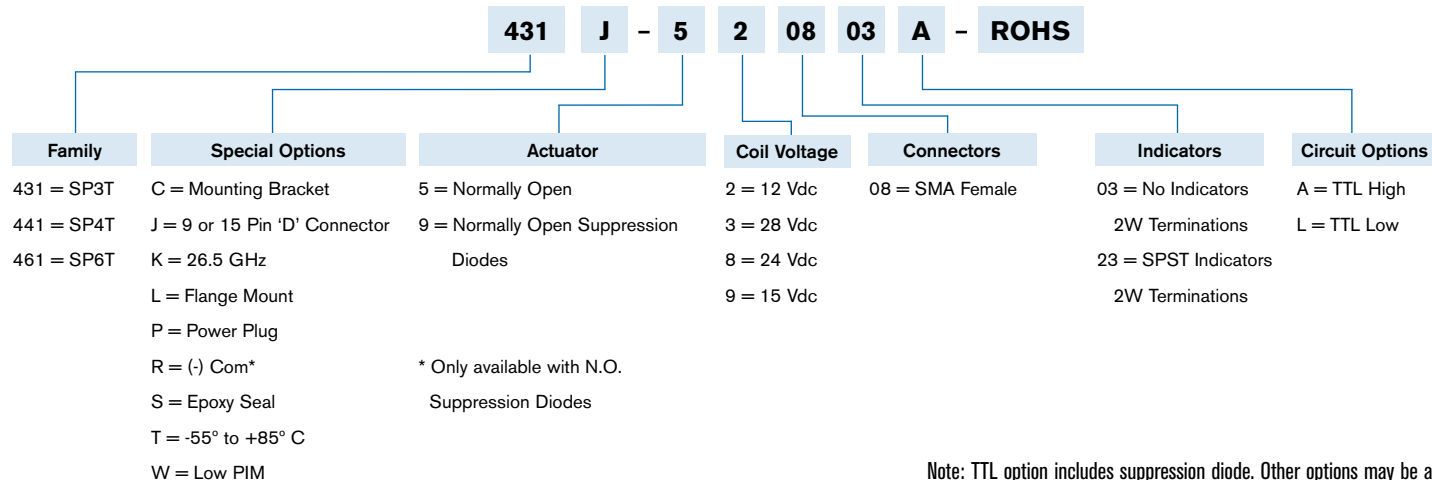


| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 2.70 [68.6] | 4X1-5X0803 | 3 |
| 2.70 [68.6] | 4X1-5X0823 | 3 |
| 2.70 [68.6] | 4X1-5X0803A | 4 |
| 3.00 [76.2] | 4X1-5X0823A | 4 |

461-530823 Shown

For Electrical Schematic, see page # 3-20

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- DC-26.5 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 80 | 0.20 |
| 4-8 | 1.30 | 75 | 0.30 |
| 8-12.4 | 1.40 | 70 | 0.40 |
| 12.4-18 | 1.50 | 60 | 0.50 |
| *18-26.5 | 1.80 | 55 | 0.80 |

*Performance varies depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 600 mA
- 24 Vdc 235 mA
- 28 Vdc 190 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

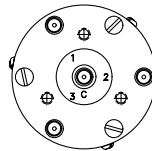
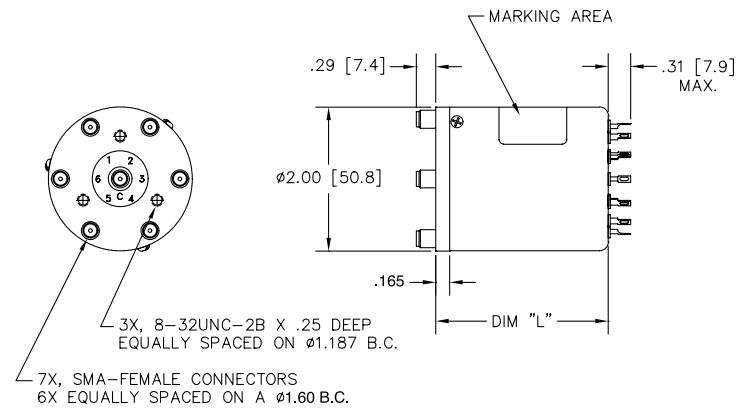
50G, 1/2 Sine, 11 ms

Nominal Weight*:

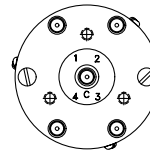
11.0 oz. (312 g.)

* Performance and weight varies depending on selected options.

Mechanical



3 POSITION



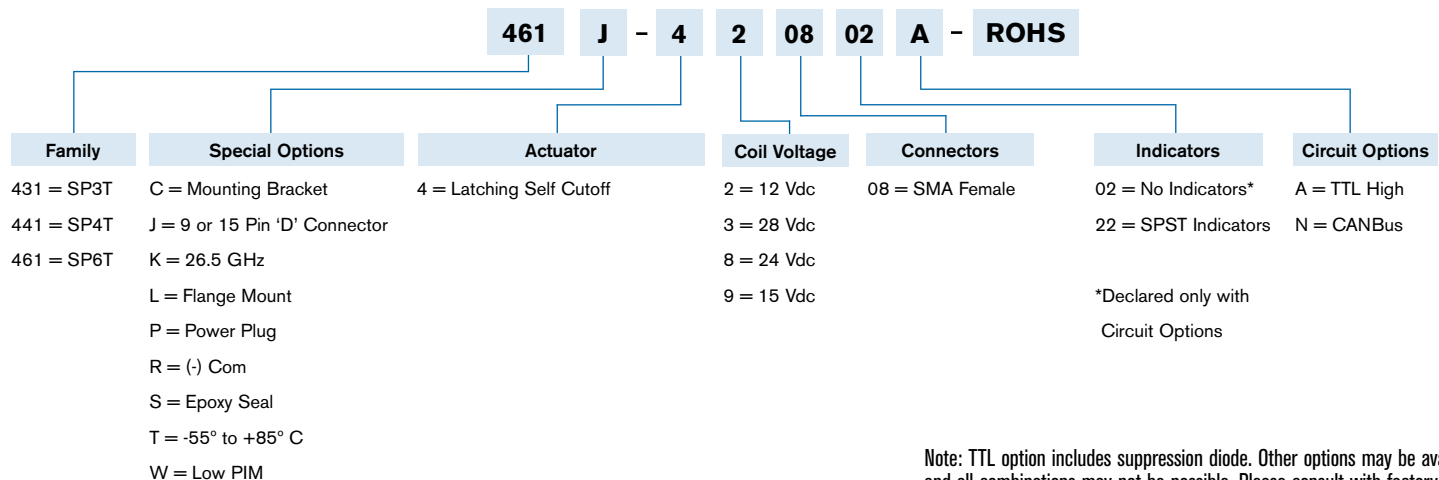
4 POSITION

| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 2.40 [61.0] | 4X1-4X08 | 1 |
| 2.70 [68.6] | 4X1-4X0822 | 1 |
| 3.00 [76.2] | 4X1-4X0802A | 2 |
| 3.00 [76.2] | 4X1-4X0822A | 2 |

461-430822 Shown

For Electrical Schematic, see page # 3-21

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- DC-26.5 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 80 | 0.20 |
| 4-8 | 1.30 | 75 | 0.30 |
| 8-12.4 | 1.40 | 70 | 0.40 |
| 12.4-18 | 1.50 | 60 | 0.50 |
| *18-26.5 | 1.80 | 50 | 0.80 |

*Performance varies depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 600 mA
- 24 Vdc 235 mA
- 28 Vdc 190 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

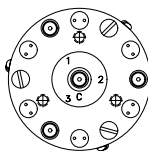
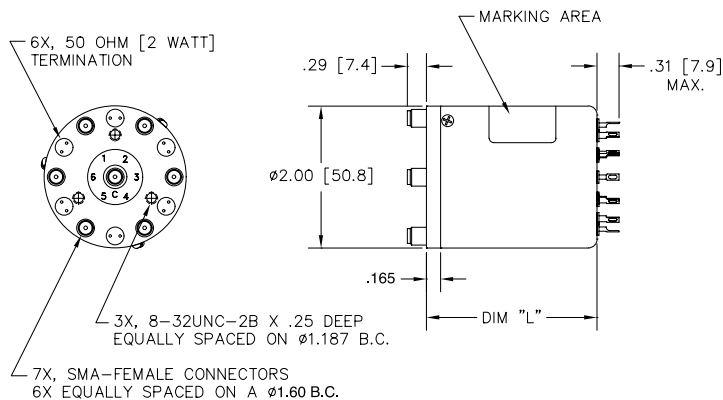
50G, 1/2 Sine, 11 ms

Nominal Weight*:

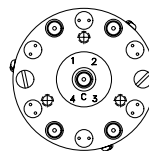
11.0 oz. (312 g.)

* Performance and weight varies depending on selected options.

Mechanical



3 POSITION



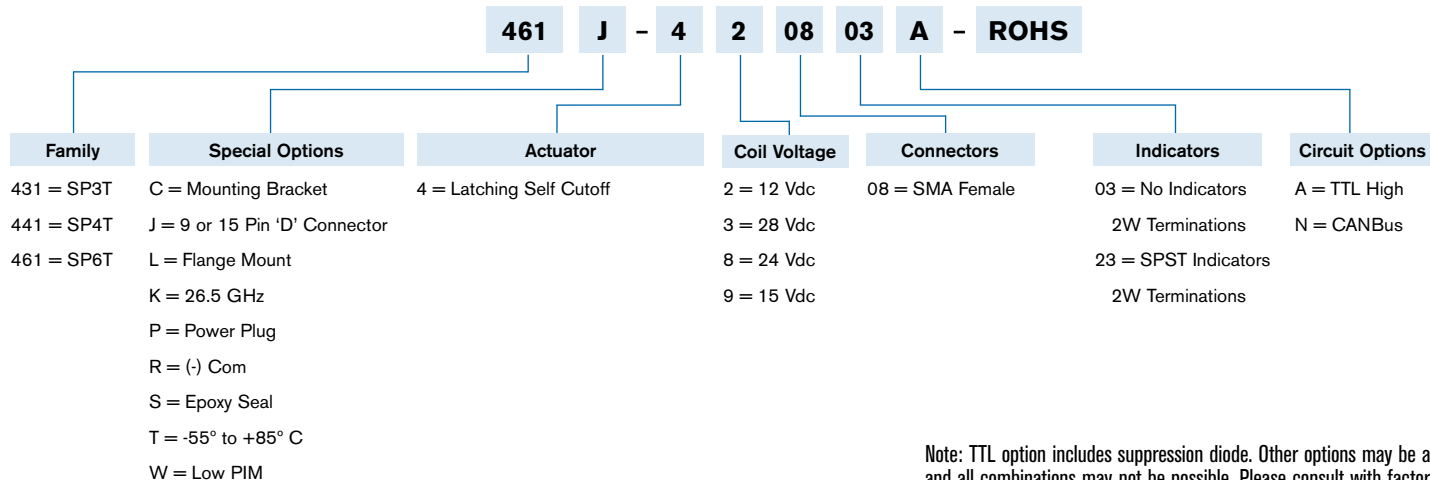
4 POSITION

| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 2.40 [61.0] | 4X1-4X0803 | 3 |
| 2.70 [68.6] | 4X1-4X0823 | 3 |
| 3.00 [76.2] | 4X1-4X0803A | 4 |
| 3.00 [76.2] | 4X1-4X0823A | 4 |

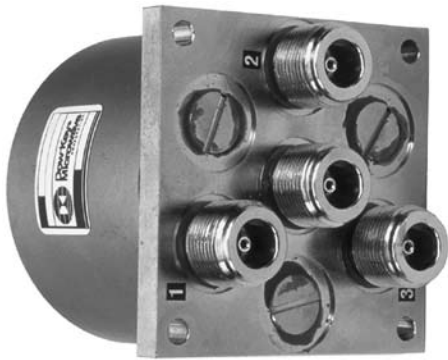
461-430823 Shown

For Electrical Schematic, see page # 3-21

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-2 GHz
- DC-6 GHz
- DC-12.4 GHz
- Medium/High Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.25 | 70 | 0.30 |
| 4-8 | 1.35 | 60 | 0.40 |
| 8-12.4 | 1.70 | 55 | 0.70 |

Note: Performance varies depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 105 mA
- 24 Vdc 70 mA
- 28 Vdc 60 mA

Switching Time:

20 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

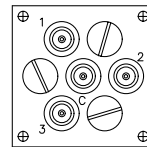
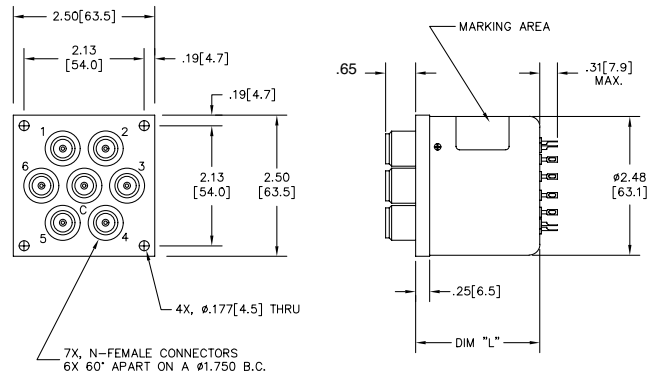
50G, 1/2 Sine, 11 ms

Nominal Weight*:

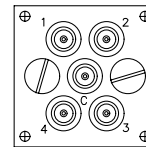
17.0 oz. (482 g.)

* Performance and weight varies depending on selected options.

Mechanical



3 POSITION



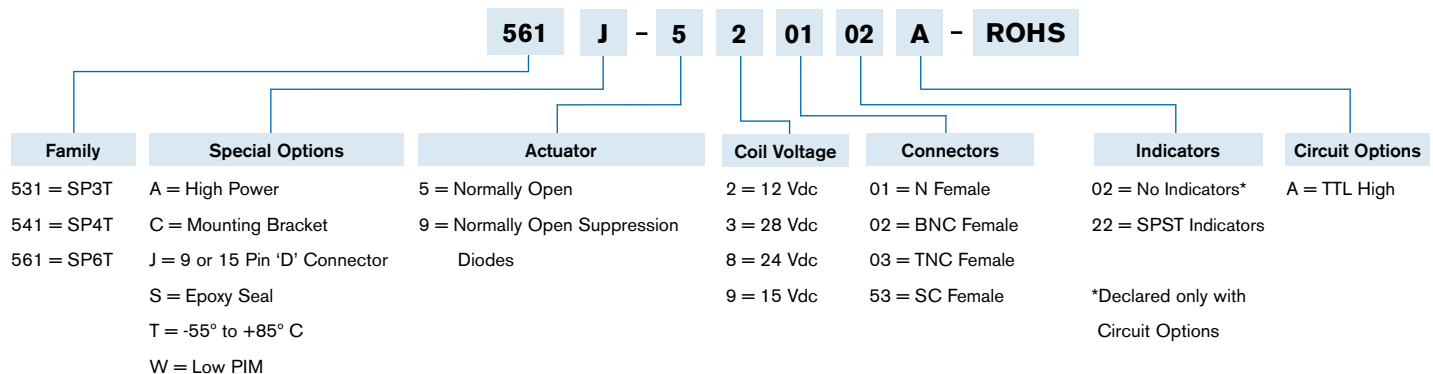
4 POSITION

| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 2.20 [55.9] | 5X1-5X01 | 1 |
| 2.62 [66.5] | 5X1-5X0122 | 1 |
| 2.90 [73.7] | 5X1-5X0102A | 2 |
| 2.90 [73.7] | 5X1-5X0122A | 2 |

561-530122 Shown

For Electrical Schematic, see page # 3-20

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-2 GHz
- DC-6 GHz
- DC-12.4 GHz
- Medium/High Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.25 | 70 | 0.30 |
| 4-8 | 1.35 | 60 | 0.40 |
| 8-12.4 | 1.70 | 55 | 0.70 |

Note: Performance applies to N and TNC type connectors. Consult with factory for other performances.

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 550 mA
- 24 Vdc 275 mA
- 28 Vdc 240 mA

Switching Time:

20 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

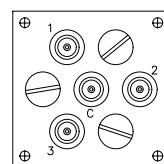
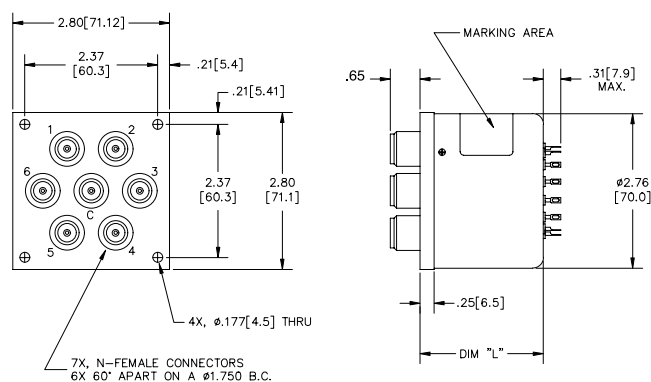
50G, 1/2 Sine, 11 ms

Nominal Weight*:

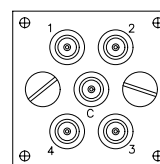
22.0 oz. (624 g.)

* Performance and weight varies depending on selected options.

Mechanical



3 POSITION



4 POSITION

| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 2.20 [55.9] | 5X1-4X01 | 1 |
| 2.95 [74.9] | 5X1-4X0122 | 1 |
| 2.95 [74.9] | 5X1-4X0102A | 2 |
| 2.95 [74.9] | 5X1-4X0122A | 2 |

561-430122A Shown

For Electrical Schematic, see page # 3-21

Part Number Selector

561 J - 4 2 01 02 A - ROHS

| Family | Special Options | Actuator | Coil Voltage | Connectors | Indicators | Circuit Options |
|------------|-------------------------------|--------------------------|--------------|-----------------|-------------------------------------|-----------------|
| 531 = SP3T | A = High Power | 4 = Latching Self Cutoff | 2 = 12 Vdc | 01 = N Female | 02 = No Indicators* | A = TTL High |
| 541 = SP4T | C = Mounting Bracket | | 3 = 28 Vdc | 02 = BNC Female | 22 = SPST Indicators | |
| 561 = SP6T | J = 9 or 15 Pin 'D' Connector | | 8 = 24 Vdc | 03 = TNC Female | | |
| | P = Power Plug | | 9 = 15 Vdc | 53 = SC Female | | |
| | R = (-) Com | | | | *Declared only with Circuit Options | |
| | S = Epoxy Seal | | | | | |
| | T = -55° to +85° C | | | | | |
| | W = Low PIM | | | | | |

Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-40 GHz
- Medium/High Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-6 | 1.30 | 70 | 0.30 |
| 6-12 | 1.40 | 60 | 0.40 |
| 12-18 | 1.50 | 60 | 0.50 |
| 18-26.5 | 1.70 | 55 | 0.70 |
| 26.5-40 | 1.95 | 50 | 0.95 |

Specifications

Operating Voltage (across temperature range):

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 565 mA
- 24 Vdc 255 mA
- 28 Vdc 220 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

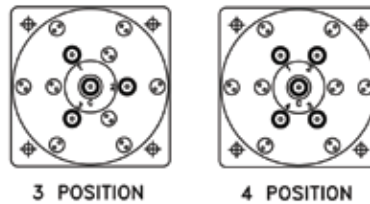
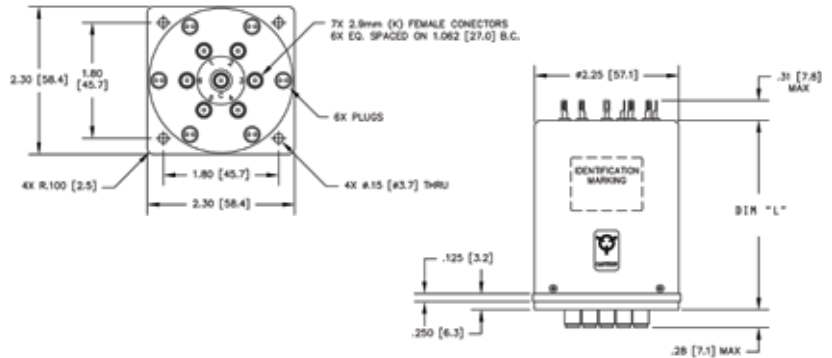
50G, 1/2 Sine, 11 ms

Nominal Weight:

11.0 oz. (312 g.)

* Performance and weight varies depending on selected options.

Mechanical

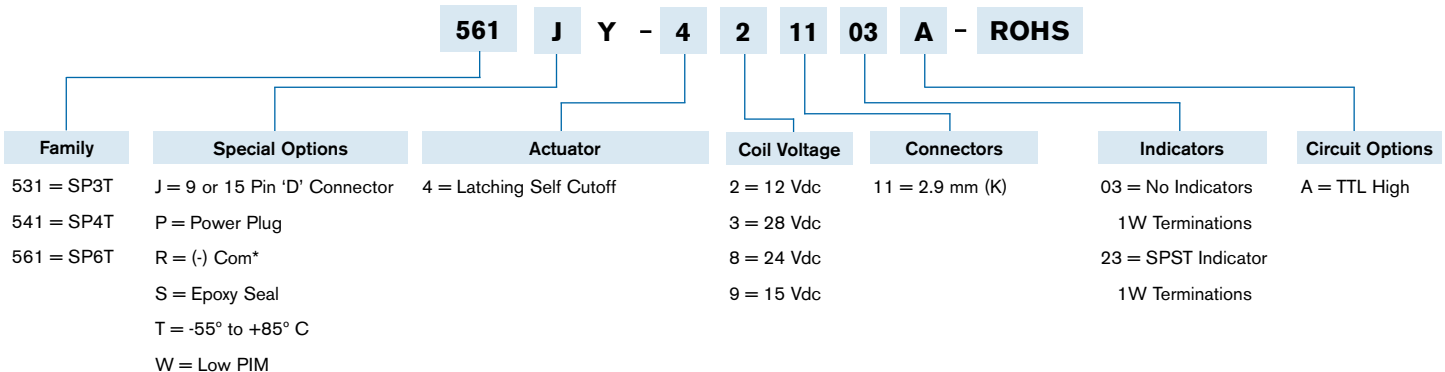


| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|--------------|--------------|
| 3.10 [78.7] | 5X1Y-4X11 | 3 |
| 3.10 [78.7] | 5X1Y-4X22 | 3 |
| 3.10 [78.7] | 5X1Y-4X1102A | 4 |
| 3.10 [78.7] | 5X1Y-4X1122A | 4 |

561Y-4311 Shown

For Electrical Schematic, see page # 3-21

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 75 | 0.20 |
| 4-8 | 1.30 | 65 | 0.30 |
| 8-12.4 | 1.40 | 60 | 0.40 |
| 12.4-18 | 1.60 | 60 | 0.60 |

Note: Performance varies depending on selected options

Specifications

Operating Voltage (across temperature range):

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 300 mA
- 24 Vdc 150 mA
- 28 Vdc 130 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

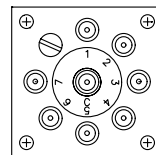
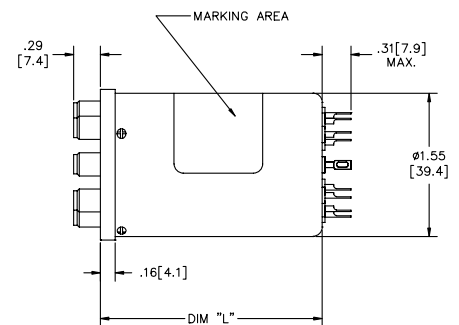
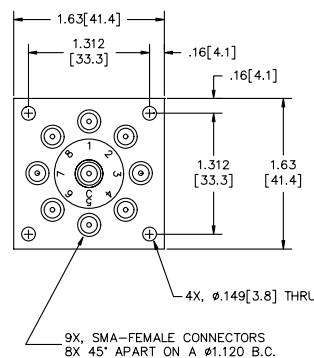
50G, 1/2 Sine, 11 ms

Nominal Weight*:

5.0 oz. (142 g.)

* Performance and weight varies depending on selected options.

Mechanical

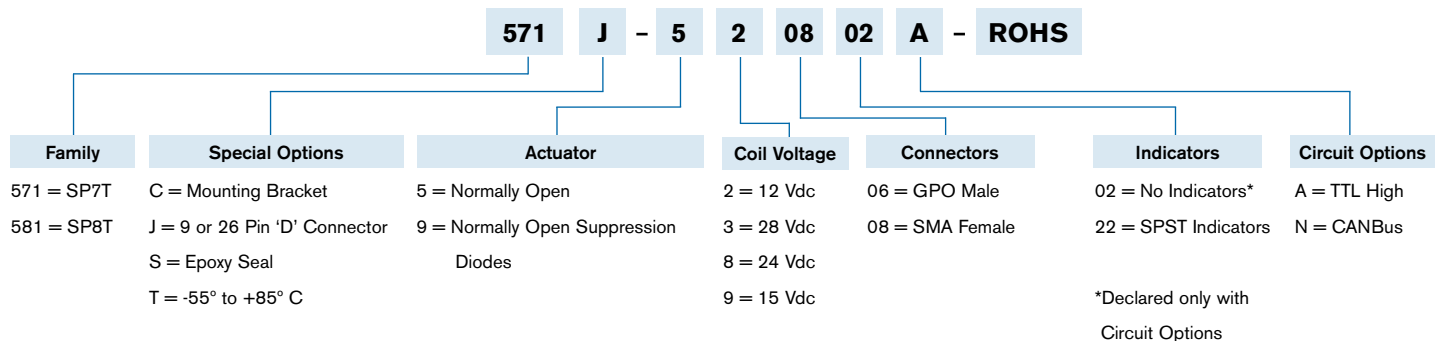


| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 1.60 [40.6] | 5Y1-5X08 | 1 |
| 2.04 [51.8] | 5Y1-5X0822 | 1 |
| 1.91 [48.5] | 5Y1-5X0802A | 2 |
| 2.58 [65.5] | 5Y1-5X0822A | 2 |

581-530822 Shown

For Electrical Schematic, see page # 3-20

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- DC-26.5 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 80 | 0.20 |
| 4-8 | 1.30 | 75 | 0.30 |
| 8-12.4 | 1.40 | 70 | 0.40 |
| 12.4-18 | 1.50 | 60 | 0.50 |
| 18-26.5 | 1.80 | 55 | 0.80 |

Note: Performance may vary depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 345 mA
- 24 Vdc 175 mA
- 28 Vdc 150 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

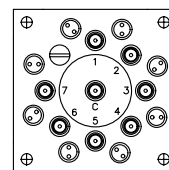
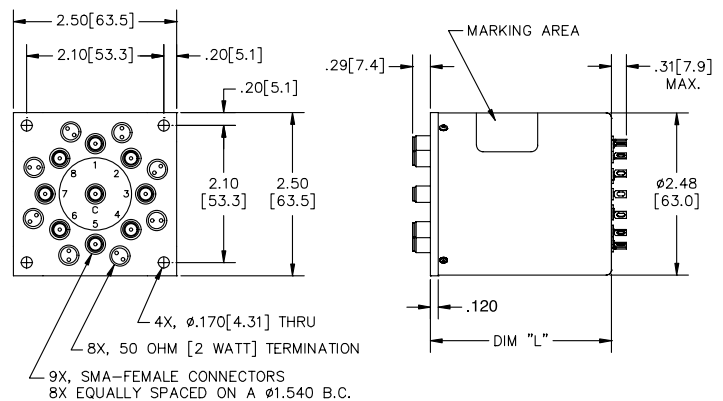
50G, 1/2 Sine, 11 ms

Nominal Weight:

16.5 oz. (468 g.)

* Performance and weight varies depending on selected options.

Mechanical



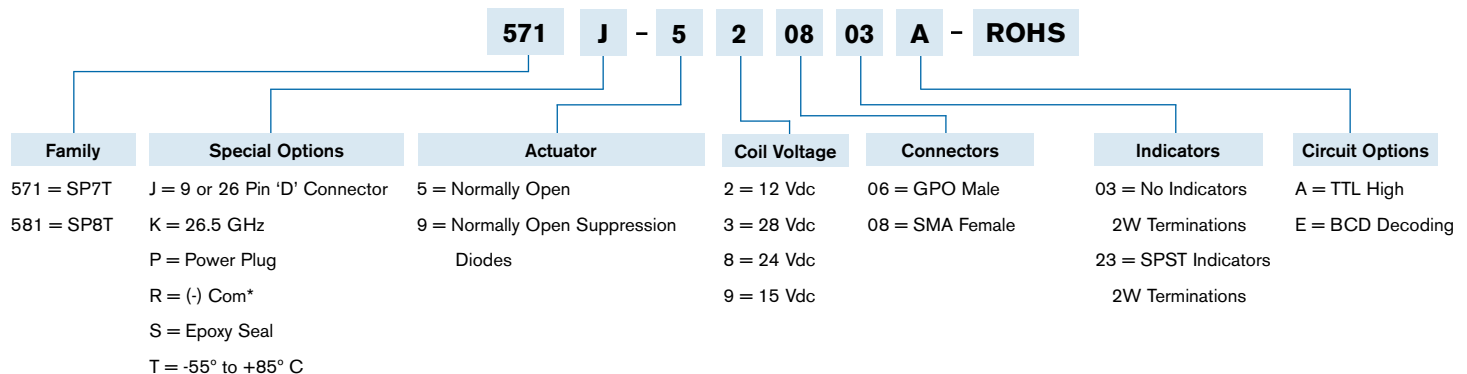
7 POSITION

| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 1.93 [49.0] | 5Y1-5X0803 | 3 |
| 2.80 [71.1] | 5Y1-5X0823 | 3 |
| 2.80 [71.1] | 5Y1-5X0803A | 4 |
| 2.80 [71.1] | 5Y1-5X0823A | 4 |

581-530823 Shown

For Electrical Schematic, see page # 3-20

Part Number Selector



* Only available with N.O.

Suppression Diodes

Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.

RF Characteristics

- DC-18 GHz
- Low/Medium Power
- 1M Life Cycles

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 80 | 0.20 |
| 4-8 | 1.30 | 75 | 0.30 |
| 8-12.4 | 1.40 | 70 | 0.40 |
| 12.4-18 | 1.50 | 60 | 0.50 |

Note: Performance may vary depending on selected options



Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 440 mA
- 24 Vdc 225 mA
- 28 Vdc 190 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

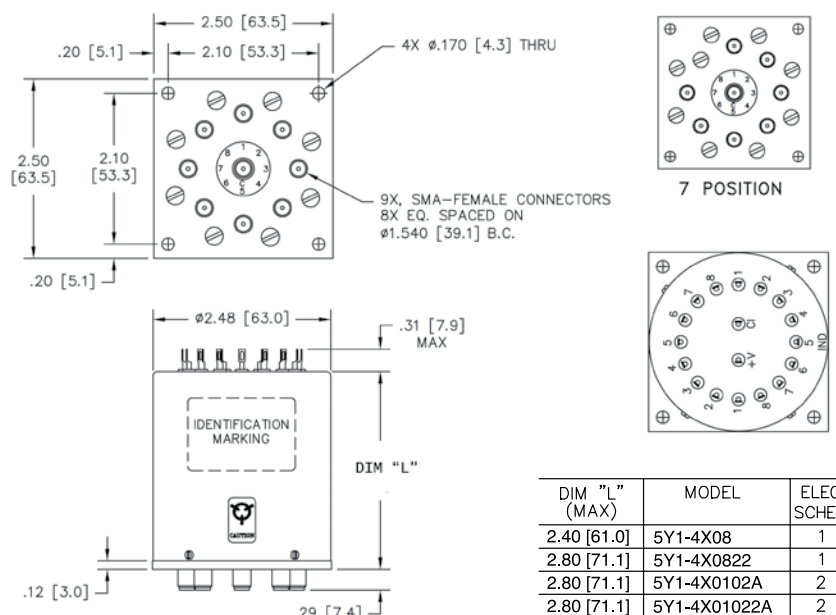
50G, 1/2 Sine, 11 ms

Nominal Weight*:

18.0 oz. (510 g.)

* Performance and weight varies depending on selected options.

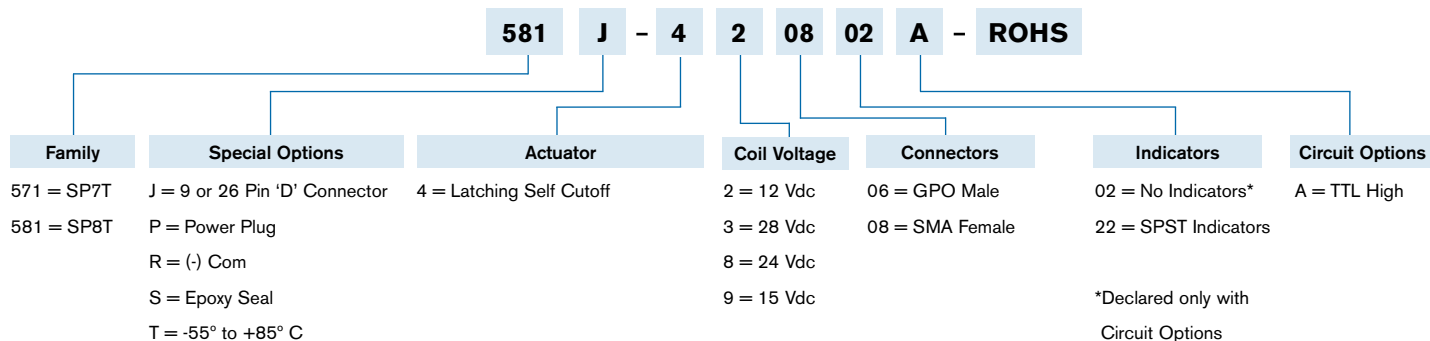
Mechanical



581-430822 Shown

For Electrical Schematic, see page # 3-21

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- DC-26 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 80 | 0.20 |
| 4-8 | 1.30 | 75 | 0.30 |
| 8-12.4 | 1.40 | 70 | 0.40 |
| 12.4-18 | 1.50 | 60 | 0.50 |
| 18-26 | 1.70 | 55 | 0.70 |

Note: Performance may vary depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 440 mA
- 24 Vdc 225 mA
- 28 Vdc 190 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

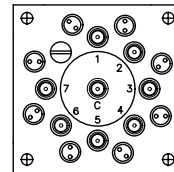
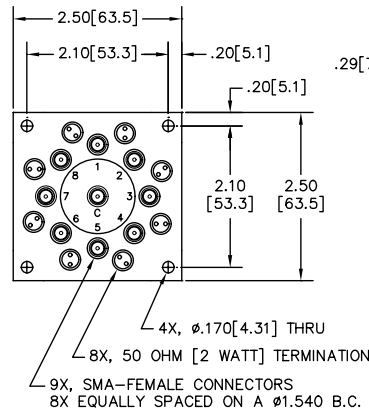
50G, 1/2 Sine, 11 ms

Nominal Weight:

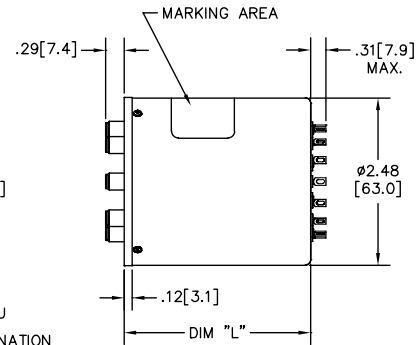
18.0 oz. (510 g.)

* Performance and weight varies depending on selected options.

Mechanical



7 POSITION



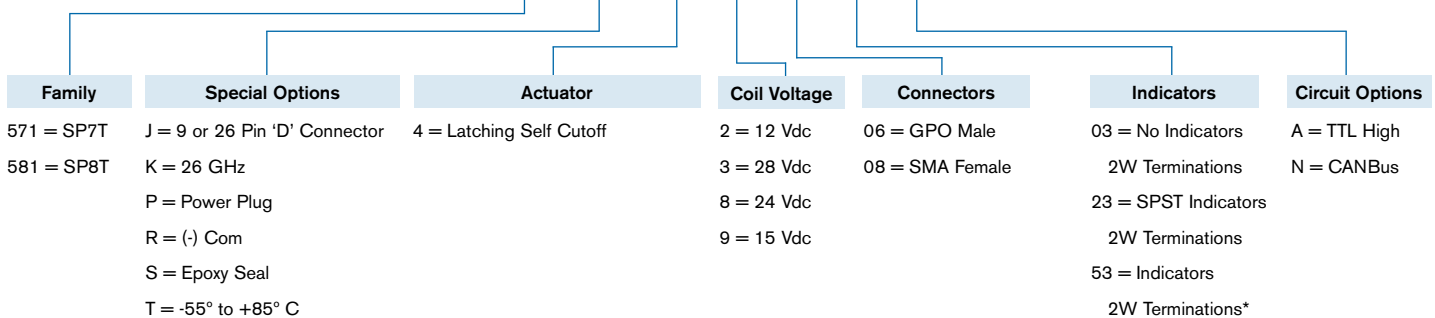
| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 2.40 [61.0] | 5Y1-4X0803 | 3 |
| 2.80 [71.1] | 5Y1-4X0823 | 3 |
| 2.80 [71.1] | 5Y1-4X0803A | 4 |
| 2.80 [71.1] | 5Y1-4X0823A | 4 |

581-430823 Shown

For Electrical Schematic, see page # 3-21

Part Number Selector

581 J - 4 2 08 03 A - ROHS



* Only used with CANBus Option

Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 70 | 0.20 |
| 4-8 | 1.30 | 65 | 0.30 |
| 8-12.4 | 1.40 | 60 | 0.40 |
| 12.4-18 | 1.60 | 55 | 0.60 |

Note: Performance may vary depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 300 mA
- 24 Vdc 150 mA
- 28 Vdc 135 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

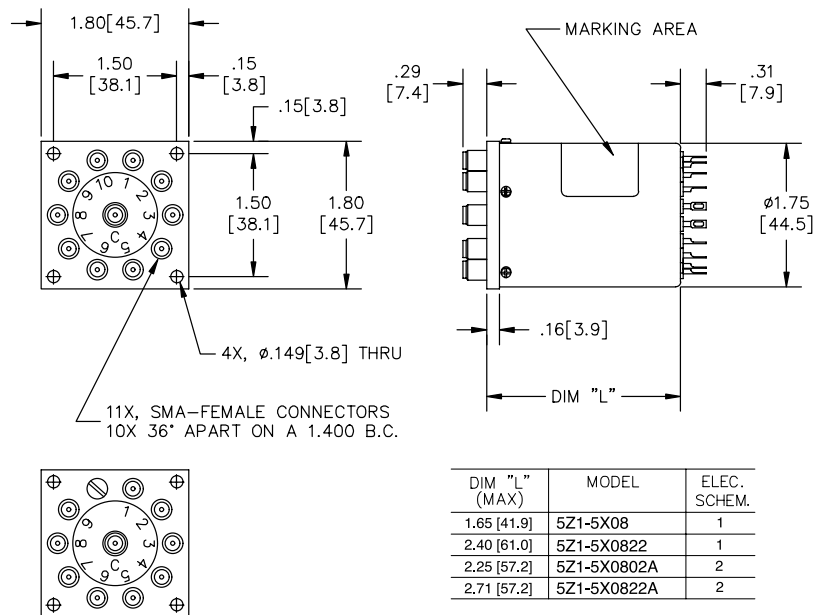
50G, 1/2 Sine, 11 ms

Nominal Weight:

5.5 oz. (156 g.)

* Performance varies depending on selected options.

Mechanical

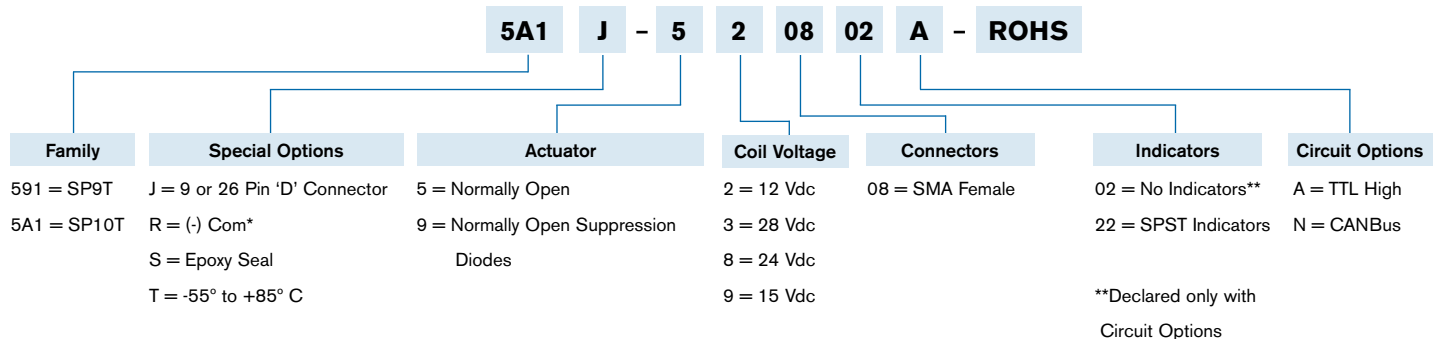


9 POSITION

5A1-530822 Shown

For Electrical Schematic, see page # 3-20

Part Number Selector



* Only available with N.O. Suppression Diodes

**Declared only with Circuit Options

Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.

RF Characteristics



- DC-18 GHz
- Low/Medium Power
- 1M Life Cycles

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 70 | 0.20 |
| 4-8 | 1.30 | 65 | 0.30 |
| 8-12.4 | 1.40 | 60 | 0.40 |
| 12.4-18 | 1.60 | 55 | 0.60 |

Note: Performance may vary depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 440 mA
- 24 Vdc 225 mA
- 28 Vdc 190 mA

Switching Time*:

20 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

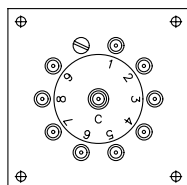
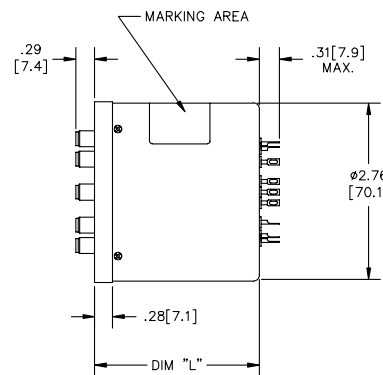
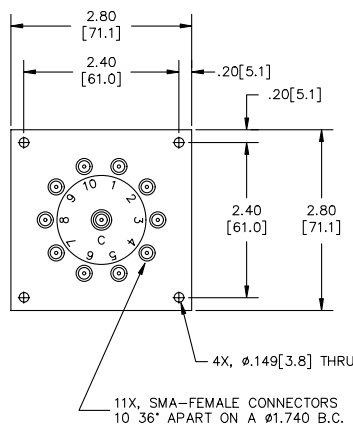
50G, 1/2 Sine, 11 ms

Nominal Weight*:

15.0 oz. (425 g.)

* Performance and weight varies depending on selected options.

Mechanical



| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 3.00 [76.2] | 5Z1-5X08 | 1 |
| 3.00 [76.2] | 5Z1-5X0822 | 1 |
| 3.00 [76.2] | 5Z1-5X0802A | 2 |
| 3.00 [76.2] | 5Z1-5X0822A | 2 |

5A1-430822 Shown

For Electrical Schematic, see page # 3-21

Part Number Selector

5A1 J - 4 2 08 02 A - ROHS

| Family | Special Options | Actuator | Coil Voltage | Connectors | Indicators | Circuit Options |
|-------------|-------------------------------|--------------------------|--------------|-----------------|----------------------|------------------|
| 591 = SP9T | J = 9 or 26 Pin 'D' Connector | 4 = Latching Self Cutoff | 2 = 12 Vdc | 08 = SMA Female | 02 = No Indicators* | A = TTL High |
| 5A1 = SP10T | P = Power Plug | | 3 = 28 Vdc | | 22 = SPST Indicators | E = BCD Decoding |
| | R = (-) Com | | 8 = 24 Vdc | | | |
| | S = Epoxy Seal | | 9 = 15 Vdc | | | |
| | T = -55° to +85° C | | | | | |

*Declared only with Circuit Options

Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 70 | 0.20 |
| 4-8 | 1.30 | 65 | 0.30 |
| 8-12.4 | 1.40 | 60 | 0.40 |
| 12.4-18 | 1.60 | 55 | 0.60 |

Note: Performance may vary depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 440 mA
- 24 Vdc 225 mA
- 28 Vdc 190 mA

Switching Time:

20 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

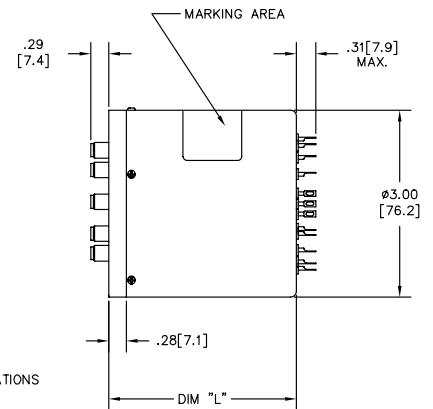
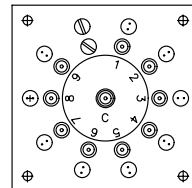
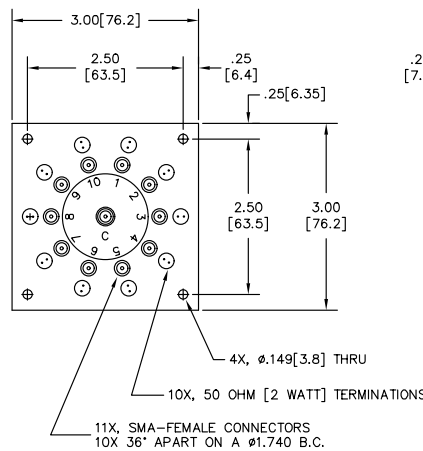
50G, 1/2 Sine, 11 ms

Nominal Weight*:

15 oz. (425 g.)

* Performance and weight varies depending on selected options.

Mechanical

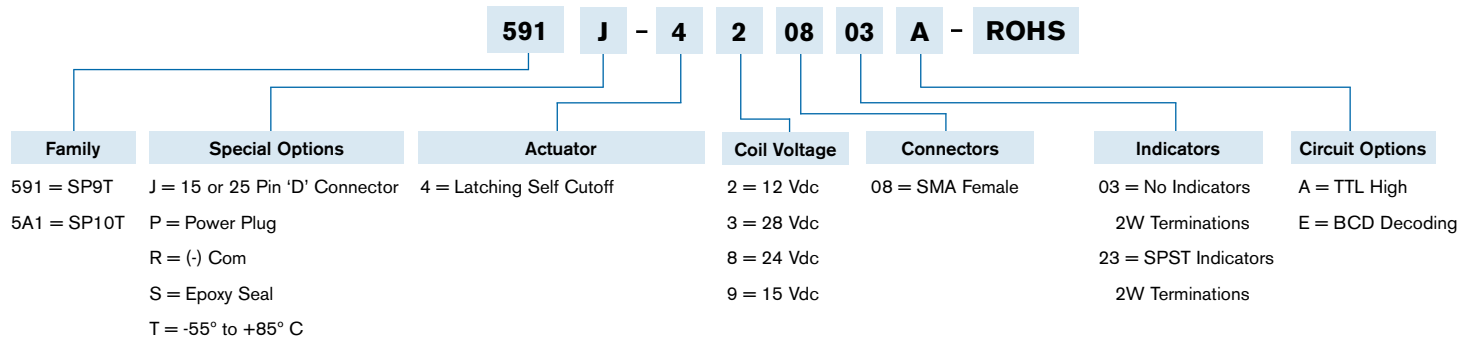


| DJM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 2.70 [68.6] | 5Z1-4X0803 | 3 |
| 3.00 [76.2] | 5Z1-4X0823 | 3 |
| 3.00 [76.2] | 5Z1-4X0803A | 4 |
| 3.00 [76.2] | 5Z1-4X0823A | 4 |

5A1-430823 Shown

For Electrical Schematic, see page # 3-21

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 70 | 0.20 |
| 4-8 | 1.40 | 65 | 0.40 |
| 8-12.4 | 1.50 | 60 | 0.60 |
| 12.4-18 | 1.80 | 60 | 0.80 |

Note: Performance may vary depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 300 mA
- 24 Vdc 150 mA
- 28 Vdc 135 mA

Switching Time:

15 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

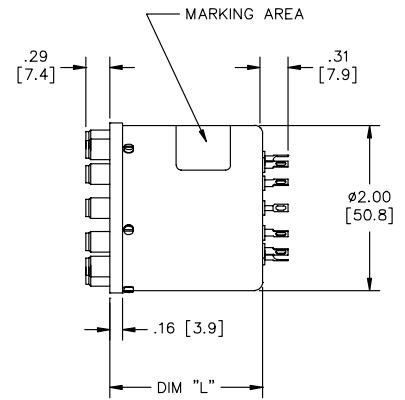
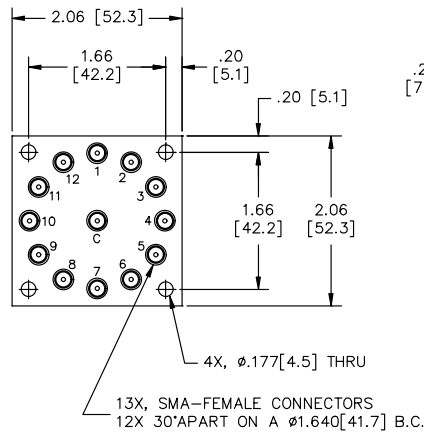
50G, 1/2 Sine, 11 ms

Nominal Weight*:

7.0 oz. (198 g.)

* Performance and weight varies depending on selected options.

Mechanical

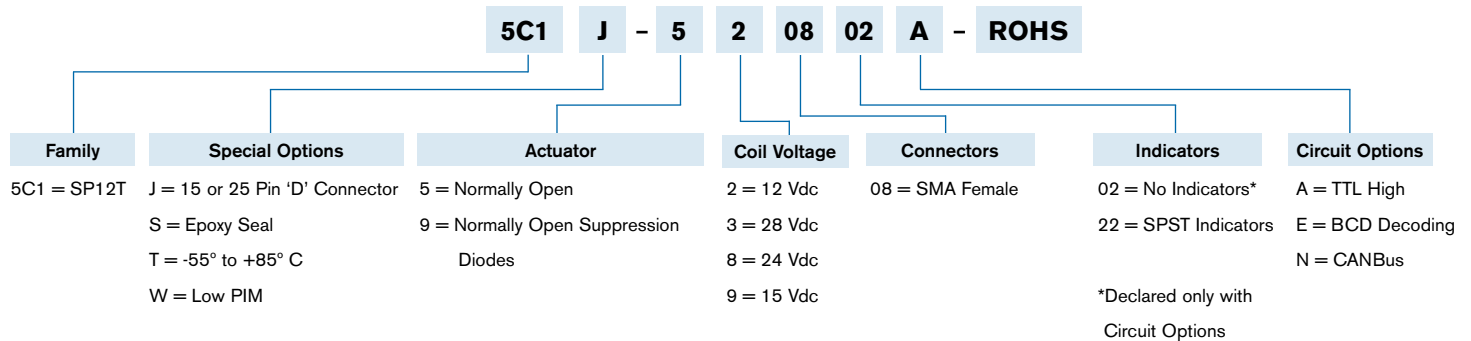


| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|-------------|--------------|
| 1.65 [41.9] | 5C1-5X08 | 1 |
| 2.50 [63.5] | 5C1-5X0802A | 2 |

5C1-5X0822 Shown

For Electrical Schematic, see page # 3-20

Part Number Selector



Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.20 | 70 | 0.20 |
| 4-8 | 1.40 | 65 | 0.40 |
| 8-12.4 | 1.50 | 60 | 0.60 |
| 12.4-18 | 1.80 | 60 | 0.80 |

Note: Performance may vary depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 650 mA
- 24 Vdc 500 mA
- 28 Vdc 500 mA

Switching Time*:

30 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

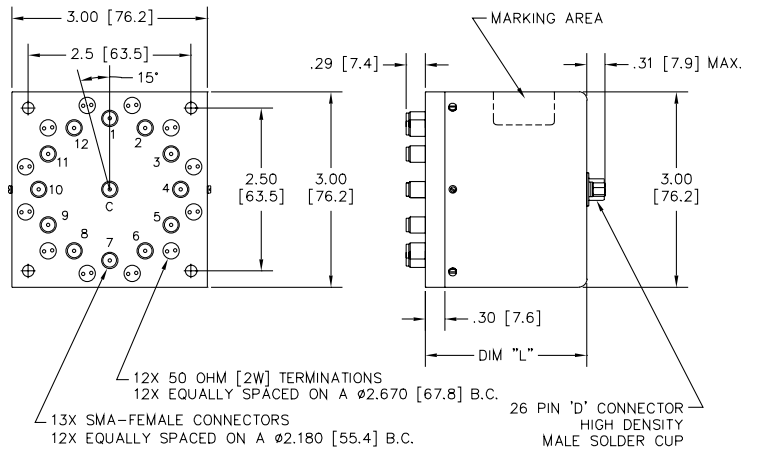
50G, 1/2 Sine, 11 ms

Nominal Weight*:

17.5 oz. (496 g.)

* Performance and weight varies depending on selected options.

Mechanical

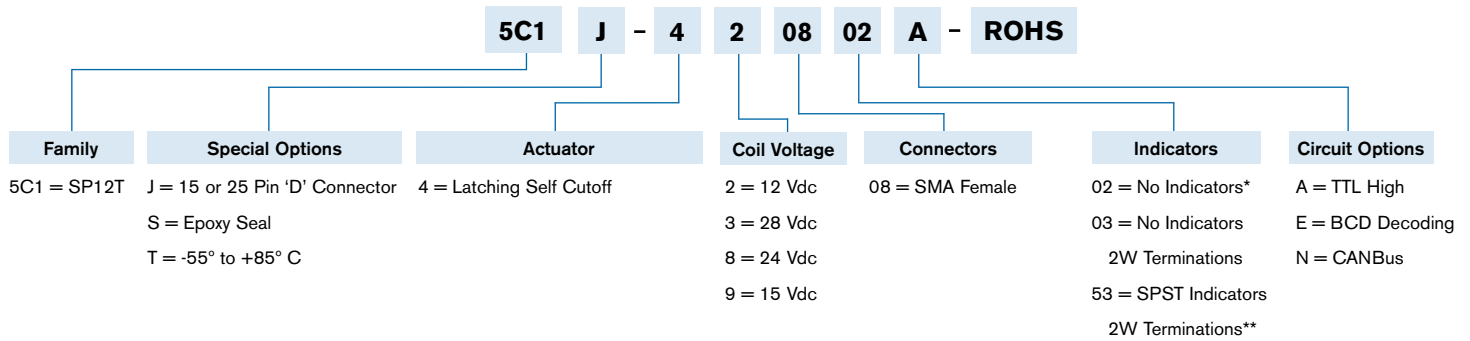


| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|--------------|--------------|
| 2.85 [72.4] | 5C1-4X0803 | 3 |
| 3.00 [76.2] | 5C1-4X0803A | 4 |
| 3.85 [97.8] | 5C1J-4X0803A | 4 |

5C1J-4X0803A Shown

For Electrical Schematic, see page # 3-21

Part Number Selector



*Declared only with Circuit Options

** Only used with CANBus Option

Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.



- DC-18 GHz
- Low/Medium Power
- 1M Life Cycles

RF Characteristics

| Frequency GHz | VSWR (max) | Isolation dB (min) | Ins. Loss dB (max) |
|---------------|------------|--------------------|--------------------|
| DC-4 | 1.30 | 70 | 0.30 |
| 4-8 | 1.40 | 65 | 0.41 |
| 8-12 | 1.60 | 60 | 0.60 |
| 12-18 | 2.00 | 55 | 1.00 |

Note: Performance may vary depending on selected options

Specifications

Operating Voltage:

- 12 Vdc (11-14 Vdc)
- 24 Vdc (20-28 Vdc)
- 28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:

- 12 Vdc 300 mA
- 24 Vdc 160 mA
- 28 Vdc 135 mA

Switching Time:

20 ms maximum

Operating Temperature:

- 25°C to +65°C (Standard)
- 55°C to +85°C (Extended "T" Option)

Mechanical Life, Cycles:

1,000,000 minimum

Vibration, Operating:

10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:

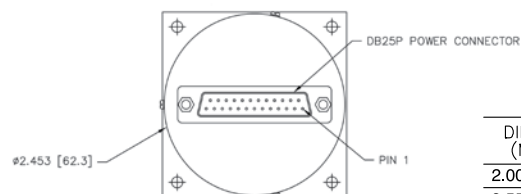
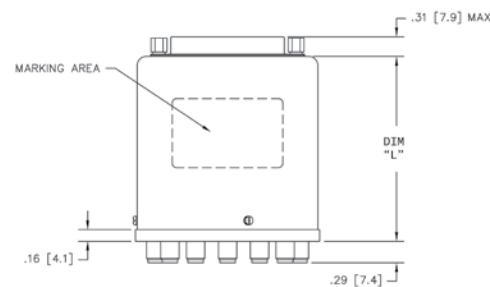
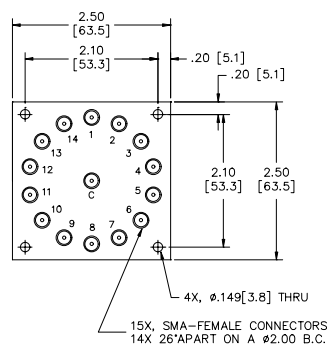
50G, 1/2 Sine, 11 ms

Nominal Weight*:

20.0 oz. (198 g.)

* Performance and weight varies depending on selected options.

Mechanical

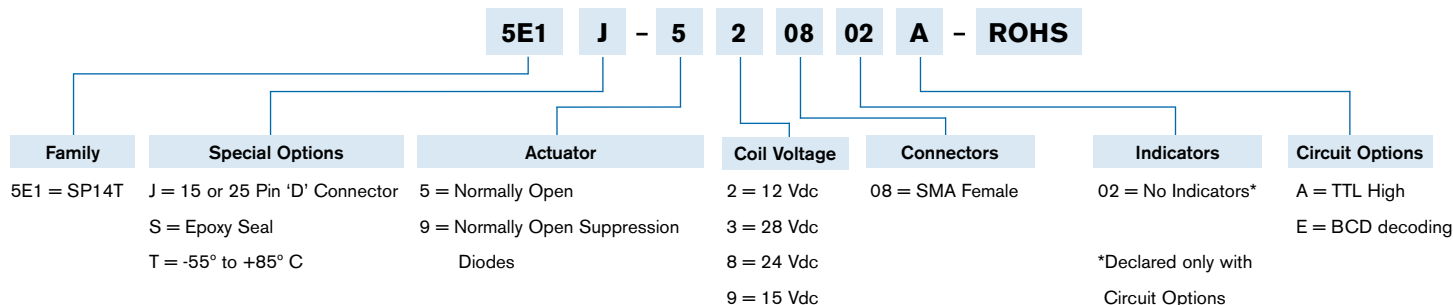


| DIM "L" (MAX) | MODEL | ELEC. SCHEM. |
|---------------|--------------|--------------|
| 2.00 [50.8] | 5E1J-5X08 | 1 |
| 2.55 [64.8] | 5E1J-5X0802A | 2 |

5E1J-5X0802A Shown

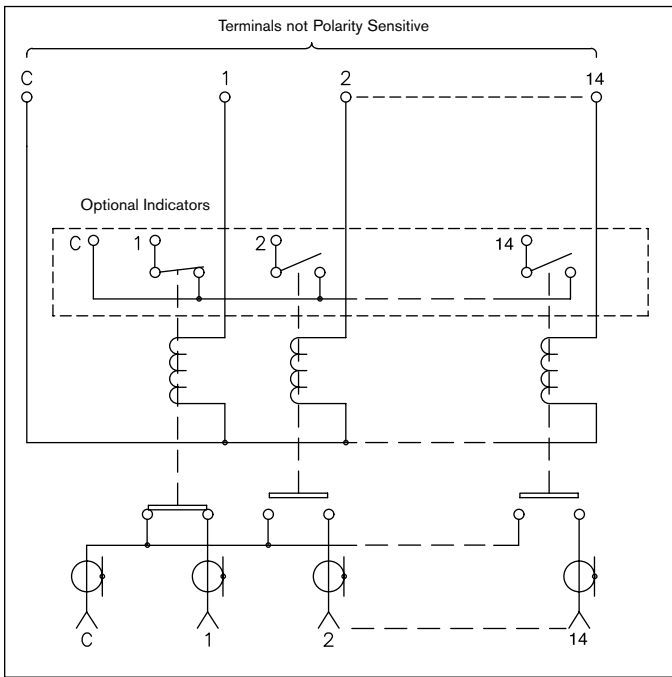
For Electrical Schematic, see page # 3-20

Part Number Selector

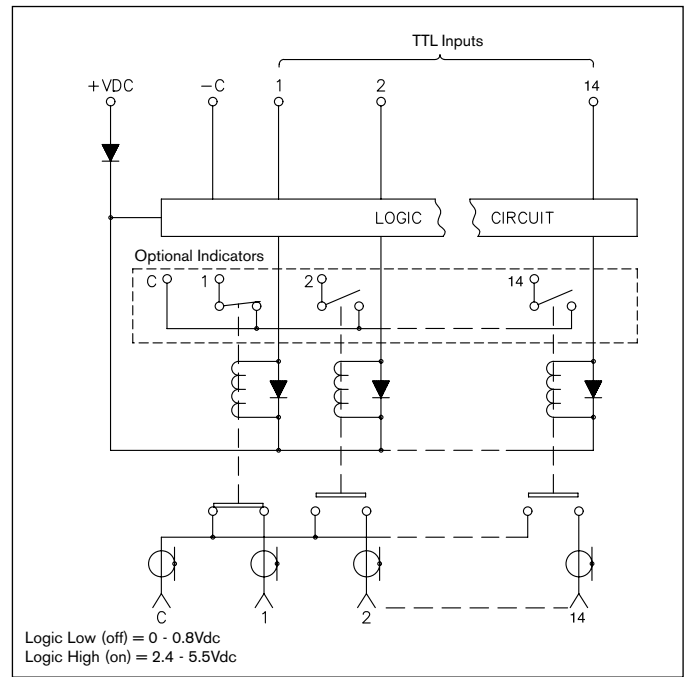


Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.

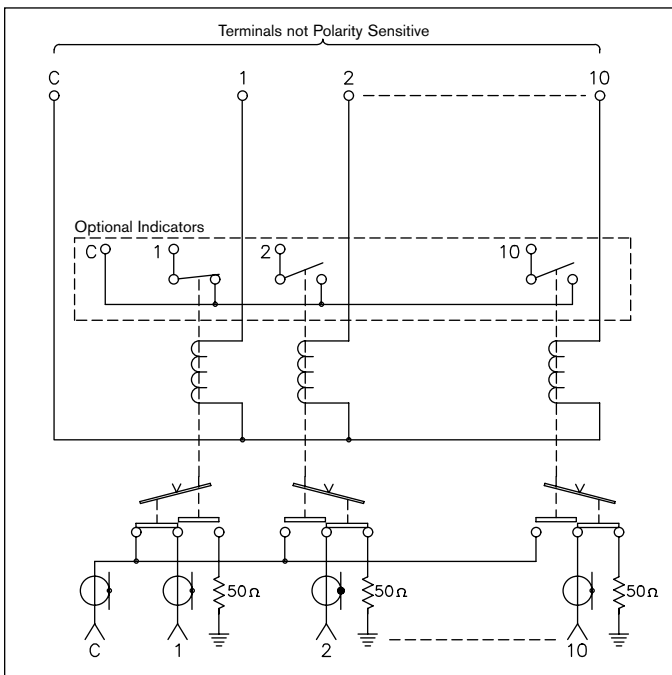
01 Normally Open



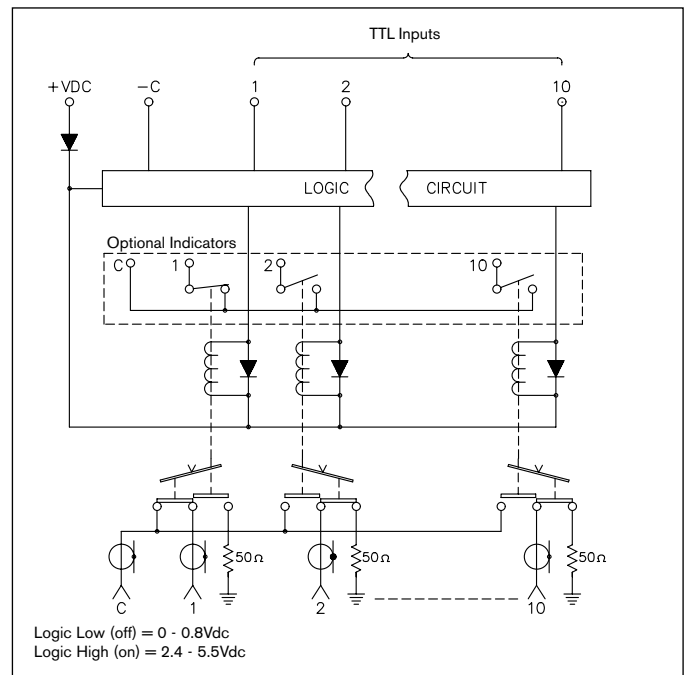
02 Normally Open TTL



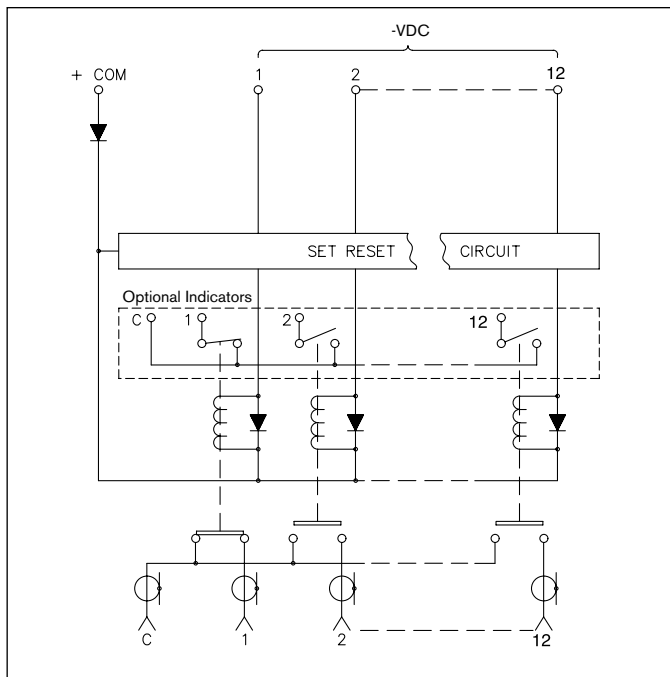
03 Normally Open Terminated



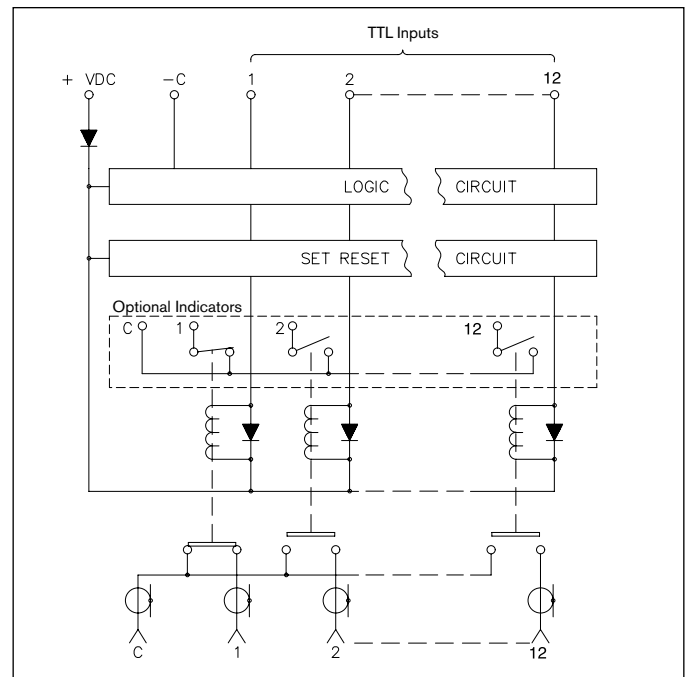
04 Normally Open Terminated TTL



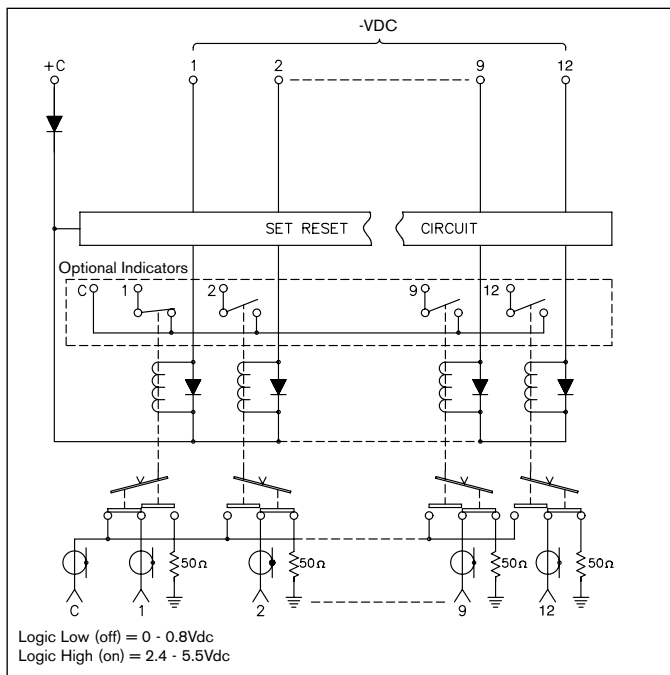
01 Latching Self Cutoff



02 Latching Self Cutoff TTL



03 Latching Self Cutoff Terminated



04 Latching Self Cutoff Terminated TTL

