

# ET Series

## Sealed Subminiature Rocker Switches

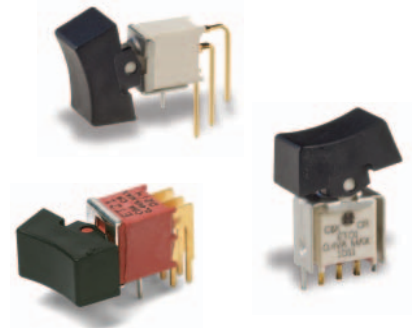
### Features/Benefits

- Sealed against solder and cleaning process contaminants
- Rocker, bushing & case—UL 94V-0
- Small footprint—saves space
- RoHS compliant



### Typical Applications

- Telecommunications
- Instrumentation
- Computers & peripherals



### Specifications

CONTACT RATING: B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: Copper alloy, silver plated. See page G-44 for additional ratings.

ELECTRICAL LIFE: ETX1 models: 60,000 make-and-break cycles at full load. All other models: 30,000 cycles.

CONTACT RESISTANCE: Below 20 m  $\Omega$  typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE:  $10^9 \Omega$  min.

DIELECTRIC STRENGTH: 1000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

PACKAGING: Surface mount switches standard in tape and reel packaging, see page G-45 for drawings and reel information.

### Materials

CASE & BUSHING: Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0) or glass filled 4/6 nylon, flame retardant, heat stabilized (UL 94V-0).

ACTUATOR: Nylon, black standard. Internal o-ring seal standard with all actuators. SA surface mount: High temperature material, glass filled 46 nylon, flame retardant, heat stabilized (UL 94V-0).

SWITCH SUPPORT: Brass, matte-tin plated.

CONTACTS & TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page G-44 for additional contact materials.

TERMINAL SEAL: Epoxy.

**NOTE:** Any models supplied with Q, B, G, S, P & R contact material are RoHS compliant.

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-41 thru G-45. For additional options not shown in catalog, consult Customer Service Center. All models are process sealed to withstand machine soldering temperatures and pressure wash cleaning methods.

| Switch Function              | Actuator         | Terminations                                  | Contact Material                     | Seal           | Actuator Color |
|------------------------------|------------------|-----------------------------------------------|--------------------------------------|----------------|----------------|
| <b>ET01</b> SP On-None-On    | <b>J1</b> Rocker | <b>A</b> Right angle, PC thru-hole            | <b>B</b> Gold                        | <b>E</b> Epoxy | <b>2</b> Black |
| <b>ET02</b> SP Off-None-On   | <b>J6</b> Rocker | <b>AV</b> Vertical Right angle, PC thru-hole  | <b>P</b> Gold, matte tin             |                | <b>1</b> White |
| <b>ET03</b> SP On-Off-On     |                  | <b>C</b> PC Thru-hole                         | <b>Q</b> Silver                      |                | <b>3</b> Red   |
| <b>ET05</b> SP Mom.-Off-Mom. |                  | <b>V3</b> V-bracket                           | <b>S</b> Silver, matte-tin           |                |                |
| <b>ET07</b> SP On-Off-Mom.   |                  | <b>AV2</b> Vertical Right angle, PC thru-hole | <b>G</b> Gold over silver            |                |                |
| <b>ET08</b> SP On-None-Mom.  |                  | <b>SA</b> Right Angle Surface mount           | <b>R</b> Gold over silver, matte-tin |                |                |
| <b>ET21</b> DP On-None-On    |                  | <b>SA1</b> Right Angle Surface mount          |                                      |                |                |
| <b>ET27</b> DP On-Off-Mom.   |                  |                                               |                                      |                |                |
| <b>ET28</b> DP On-None-Mom.  |                  |                                               |                                      |                |                |

Rocker



G

**C&K**

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

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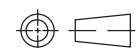
## SWITCH FUNCTION



| NO. POLES                                                                                                                                                           | MODEL NO. | SWITCH FUNCTION |        |        | CONNECTED TERMINALS |        |         | SCHEMATIC |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|--------|--------|---------------------|--------|---------|-----------|--|
|                                                                                                                                                                     |           | POS. 1          | POS. 2 | POS. 3 | POS. 1              | POS. 2 | POS. 3  |           |  |
|                                                                                                                                                                     |           |                 |        |        |                     |        |         |           |  |
| SP                                                                                                                                                                  | ET01      | ON              | NONE   | ON     | 2-3                 | N/A    | 2-1     | SPDT      |  |
|                                                                                                                                                                     | ET03      | ON              | OFF    | ON     |                     |        |         |           |  |
|                                                                                                                                                                     | ET05      | MOM.            | OFF    | MOM.   |                     |        |         |           |  |
|                                                                                                                                                                     | ET07      | ON              | OFF    | MOM.   |                     |        |         |           |  |
|                                                                                                                                                                     | ET08      | ON              | NONE   | MOM.   |                     |        |         |           |  |
|                                                                                                                                                                     | ET02      | OFF             | NONE   | ON     | OPEN                | N/A    | 3-1     | SPST      |  |
| <b>SPDT</b>                                                                                                                                                         |           |                 |        |        |                     |        |         |           |  |
| <div><div></div><div></div><div>Part number shown: ET01J6CBE2</div><div>ET02 Models:<br/>Omit terminal 2</div><div>Terminal Nos.<br/>For Reference Only</div></div> |           |                 |        |        |                     |        |         |           |  |
| DP                                                                                                                                                                  | ET21      | ON              | NONE   | ON     | 2-3,5-6             | N/A    | 2-1,5-4 | DPDT      |  |
|                                                                                                                                                                     | ET27      | ON              | OFF    | MOM.   |                     |        |         |           |  |
|                                                                                                                                                                     | ET28      | ON              | NONE   | MOM.   |                     |        |         |           |  |
| <b>DPDT</b>                                                                                                                                                         |           |                 |        |        |                     |        |         |           |  |
| <div><div></div><div></div><div>Part number shown: ET21J6CBE2</div><div>Terminal Nos.<br/>For Reference Only</div></div>                                            |           |                 |        |        |                     |        |         |           |  |

MOM. = Momentary

All models with all options when ordered with G, S, R or Q contact material.



Third Angle  
Projection

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

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# ET Series

## Sealed Subminiature Rocker Switches

ACTUATOR

ACTUATOR COLOR

ACTUATOR

J1

ROCKER

Available with all models except ET0X with A & SA & SA1 terminations.

J6

ROCKER

Standard with ET0X model with A & SA & SA1 terminations.

| OPTION CODE | ACTUATOR COLOR |
|-------------|----------------|
| 2           | BLACK          |
| 1           | WHITE          |
| 3           | RED            |

Actuators available separately, see page G-45. Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

**NOTE:** Internal o-ring actuator seal standard.

TERMINATIONS

C

PC THRU-HOLE

ET02 Models: Omit center hole.

SP & DP

A

RIGHT ANGLE, PC THRU-HOLE

Actuator Shown In Pos. 1

Not available with ET02 model.  
J6 actuator std. only on ET0X models with A terminations.

ET01J6ABE2

Horizontal Actuation

SPDT

A

RIGHT ANGLE, PC THRU-HOLE

Actuator Shown In Pos. 1

ET21J1ABE2

Horizontal Actuation

DPDT

Rocker

Actuator Shown In Pos. 1

Third Angle Projection

Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

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# ET Series Sealed Subminiature Rocker Switches

## TERMINATIONS

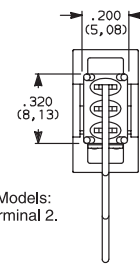
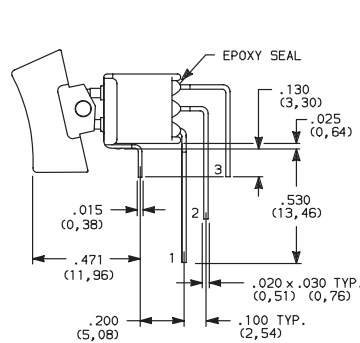
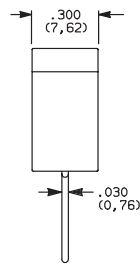
### AV VERTICAL RIGHT ANGLE, PC THRU-HOLE



**ET01J1AVBE2**  
Vertical Actuation  
**SPDT**

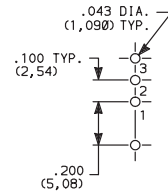
Actuator Shown In Pos. 1

**NOTE:** Terminal bend radii and lead-in manufacturing option.



ET02 Models:  
Omit terminal 2.

#### PC MOUNTING



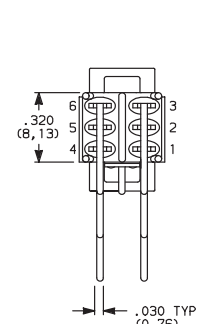
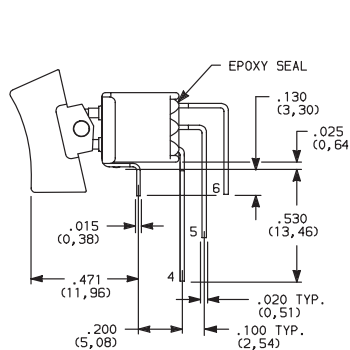
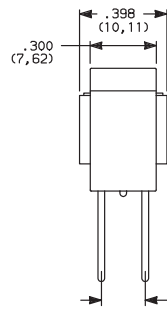
### AV VERTICAL RIGHT ANGLE, PC THRU-HOLE



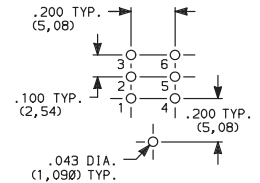
**ET21J1AVBE2**  
Vertical Actuation  
**DPDT**

Actuator Shown In Pos. 1

**NOTE:** Terminal bend radii and lead-in manufacturing option.



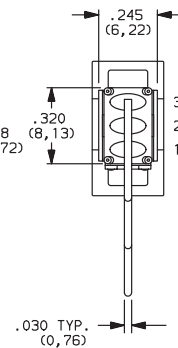
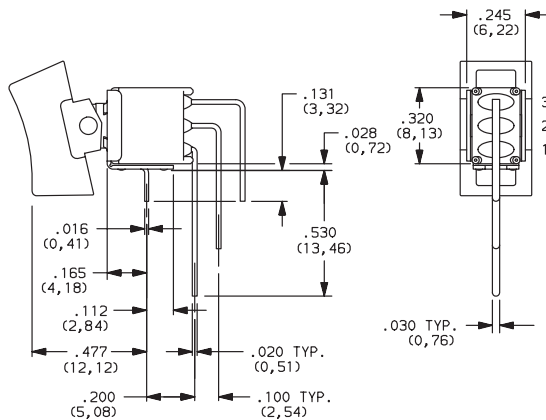
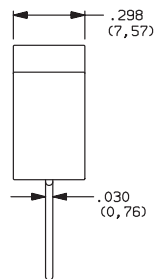
#### PC MOUNTING



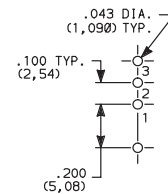
### AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE



**ET01J1AV2BE2**  
Vertical Actuation  
**SPDT**



#### PC MOUNTING



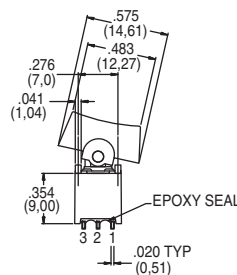
### SA1 RIGHT ANGLE, SURFACE MOUNT



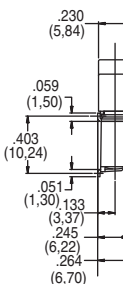
**ET01J6SA1BE2**  
Horizontal Actuation  
**SPDT**

**NOTE:** Standard with tape & reel packaging, see page G-45.

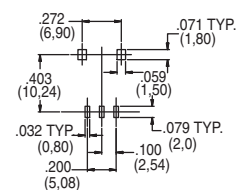
**NOTE:** Available in B contact materials only.  
Available in J6 actuator black only.  
Not available in ET02.



ACTUATOR SHOWN  
POS. 1



#### PC MOUNTING



Third Angle  
Projection

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

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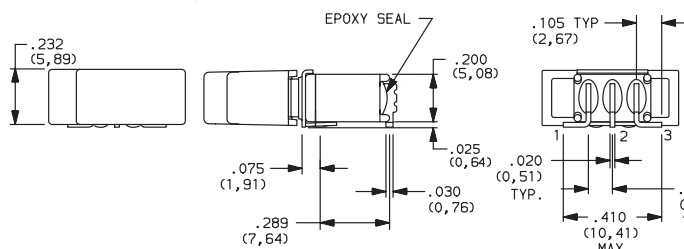


## ET Series Sealed Subminiature Rocker Switches

## TERMINATIONS

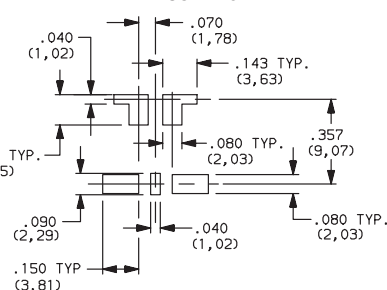


**SA** RIGHT ANGLE, SURFACE MOUNT



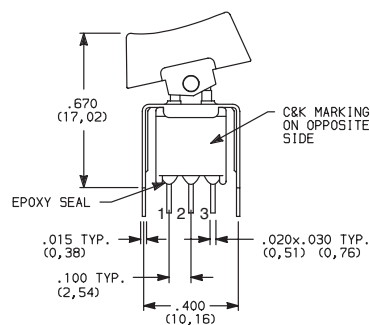
**NOTE:** Standard with tape & reel packaging, see page G-45.  
Available with P contact material only.

## PANEL MOUNTING

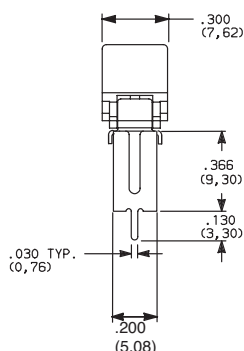


ET01J6SAPE2  
Horizontal Actuation  
**SPDT**

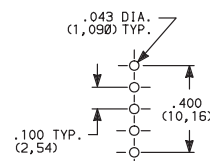
**V3** VERTICAL MOUNT, V-BRACKET



Actuator shown in Pos. 1

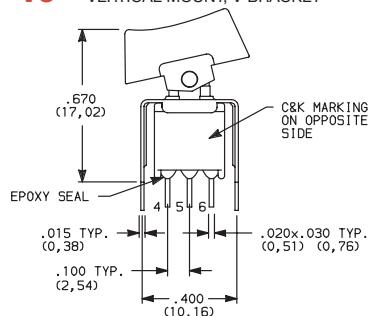


## PC MOUNTING

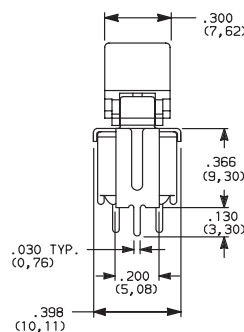


ET01J1V3BE2  
**SPDT**

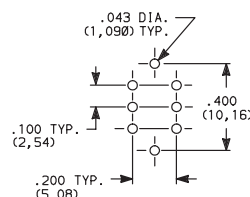
**V3** VERTICAL MOUNT. V-BRACKET



Actuator shown in Pos. 1



## PC MOUNTING



ET21J1V3BE2  
DPDT

## CONTACT MATERIAL



| OPTION CODE | CONTACT MATERIAL                   | TERMINAL PLATING       | RATINGS                           |                                                                                                                                                                          |
|-------------|------------------------------------|------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>B</b>    | GOLD <sup>1</sup>                  | GOLD <sup>1</sup>      | LOW LEVEL/<br>DRY CIRCUIT         | 0.4 VA MAX. @ 20 V AC OR DC MAX.                                                                                                                                         |
| <b>P</b>    |                                    | MATTE-TIN <sup>6</sup> |                                   |                                                                                                                                                                          |
| <b>Q</b>    | SILVER <sup>4,5</sup>              | SILVER <sup>5</sup>    | POWER                             | ETX1 MODELS: 3 AMPS @ 120 V AC<br>OR 28 V DC.<br>ALL OTHER MODELS: 2 AMPS @ 120 V AC<br>OR 28 V DC.                                                                      |
| <b>S</b>    |                                    | MATTE-TIN <sup>6</sup> |                                   |                                                                                                                                                                          |
| <b>G</b>    | GOLD OVER<br>SILVER <sup>2,3</sup> | GOLD <sup>3</sup>      | LOW LEVEL/DRY<br>CIRCUIT OR POWER | ETX1 MODELS: 0.4 VA MAX @ 20 V AC OR DC<br>MAX. OR 3 AMPS @120 V AC OR 28 V DC.<br>ALL OTHER MODELS: 0.4 VA MAX @ 20 V AC OR<br>DC MAX. OR 2 AMPS @ 120 V AC OR 28 V DC. |
| <b>R</b>    |                                    | MATTE-TIN <sup>6</sup> |                                   |                                                                                                                                                                          |

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

<sup>1</sup> CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.

<sup>2</sup> END CONTACTS: Coin silver, with gold plate over nickel plate.

<sup>3</sup> CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.

<sup>4</sup> END CONTACTS: Coin silver, silver plated.

<sup>5</sup> CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.

<sup>6</sup> TERMINALS: Copper alloy, with matte-tin over nickel plate.

**NOTE:** Any models supplied with Q, B, G, S, P & B contact material are RoHS compliant.

All models   with all options when ordered with G, Q, S & B contact material.



Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change



G

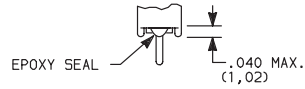


# ET Series Sealed Subminiature Rocker Switches

SEAL



**E** EPOXY SEAL



## AVAILABLE HARDWARE

J1 Actuator



PART NO.

**261A01000** WHITE  
**261A02263** BLACK  
**261A03000** RED

Material: Nylon  
Finish: Matte

NOT AVAILABLE WITH A, SA, SA1

J6 Actuator



PART NO.

**621C01000** WHITE  
**621C02263** BLACK  
**621C03000** RED

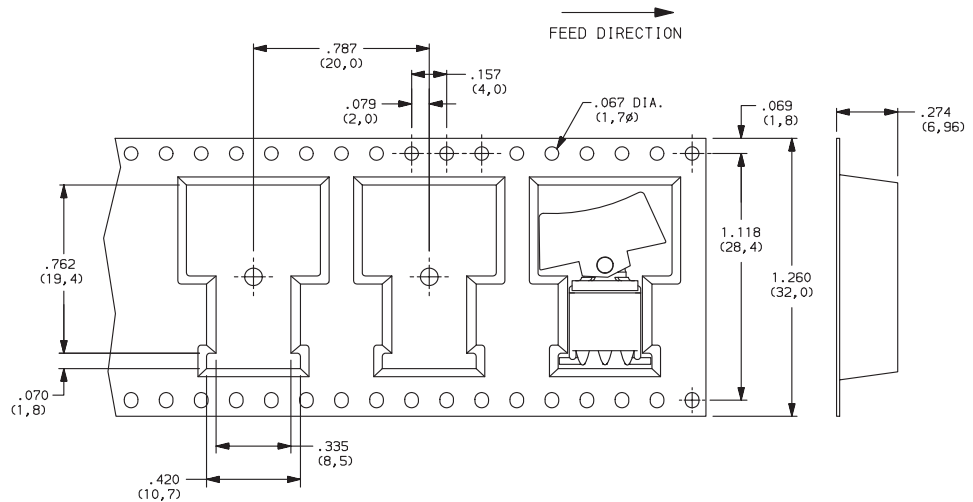
Material: Nylon  
Finish: Matte  
For Hi Temp, Consult Factory

**NOTE:** Other colors available,  
consult Customer Service Center.

## TAPE & REEL SA TERMINATION

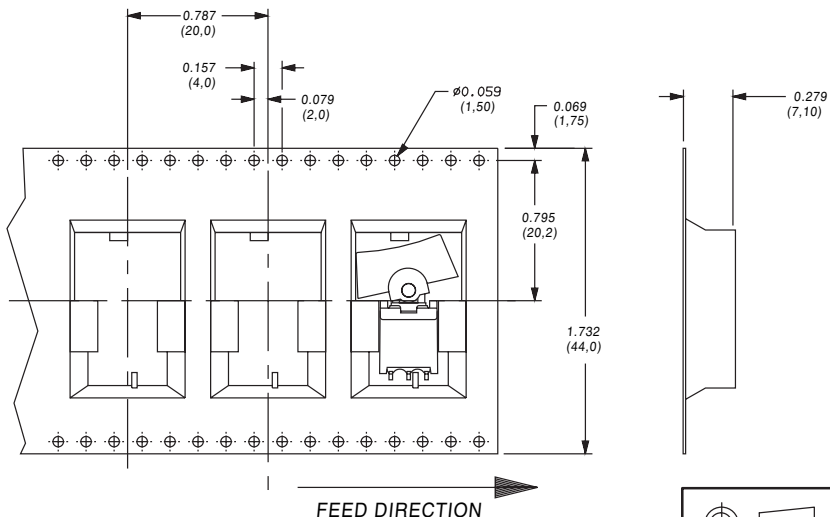
ET01J6SABE (SHOWN)

| REEL INFORMATION  |               |
|-------------------|---------------|
| OUTSIDE DIAMETER  | 13.00 (330,0) |
| PILOT HOLE        | .512 (13,0)   |
| QUANTITY PER REEL | 500           |



ET01J6SA1BE (SHOWN)

| REEL INFORMATION  |               |
|-------------------|---------------|
| OUTSIDE DIAMETER  | 13.00 (330,0) |
| PILOT HOLE        | .795 (20,2)   |
| QUANTITY PER REEL | 450           |



Third Angle  
Projection

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change



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