

ET Series

Sealed Subminiature Rocker Switches



Agency Approvals

| Agency | Agency File Number |
|--------|--------------------|
| cRU US | E42363 |

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 6 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 Ω typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts. |
| Insulation Resistance | 10 ⁹ Ω 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 7 for drawings and reel information. |

Description

Typically designed into telecommunications equipment, instrumentation or computers and peripherals, the ET series sealed subminiature rocker switch are resistant to cleaning chemicals and solder – and help designers save space with their small footprints. The ET rocker, bushing and case are all UL 94V-0 rated and RoHS compliant as well.

Features & Benefits

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

Applications

- Telecommunications
- Computers & peripherals
- Instrumentation

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 6 for additional contact materials. |
| Terminal Seal | Epoxy. |

Notes:

Any models supplied with Q, B, G, S, P & R contact material are RoHS compliant. Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

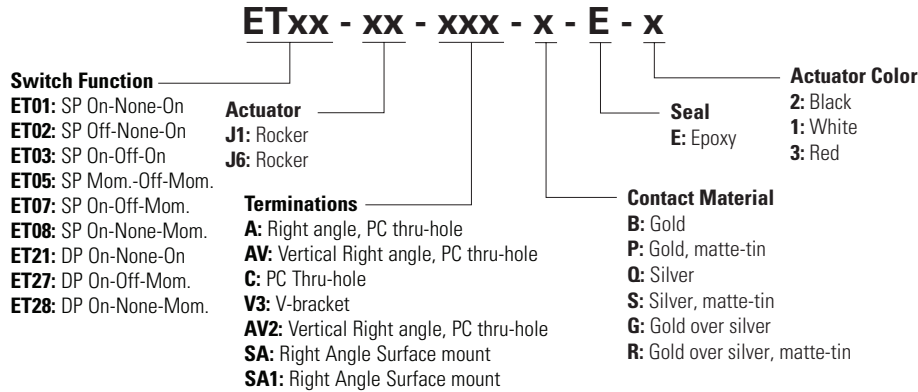
ET Series

Sealed Subminiature Rocker Switches



Ordering Number

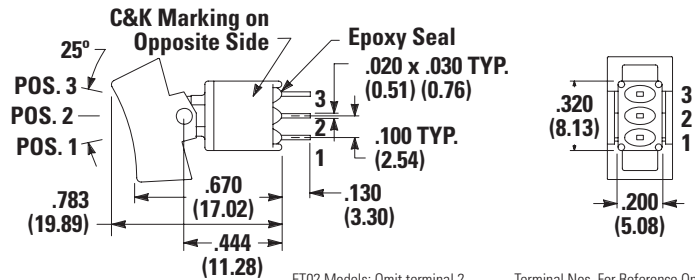
To order, simply select desired option from each category and place in the appropriate box. For additional options not shown in catalog, consult Customer Service Center. All models are process sealed to withstand machine soldering temperatures and pressure wash cleaning methods.



Switch Function inches (mm)

| No. Poles | Model No. | Switch Function | | | Connected Terminals | | | Schematic |
|-----------|-----------|------------------------------|--------|--------|---------------------|--------|--------|-----------|
| | | C&K marking on opposite side | | | | | | |
| | | POS. 1 | POS. 2 | POS. 3 | POS. 1 | POS. 2 | POS. 3 | |
| SP | ET01 | ON | NONE | ON | 2-3 | N/A | 2-1 | |
| | ET03 | ON | OFF | ON | 2-3 | OPEN | 2-1 | |
| | ET05 | MOM | OFF | MOM. | 2-3 | OPEN | 2-1 | |
| | ET07 | ON | OFF | MOM. | 2-3 | OPEN | 2-1 | |
| | ET08 | ON | NONE | MOM. | 2-3 | N/A | 2-1 | |
| | ET02 | OFF | NONE | ON | OPEN | N/A | 3-1 | |

SPDT



Part number shown: ET01J6CBE2

ET02 Models: Omit terminal 2

Terminal Nos. For Reference Only

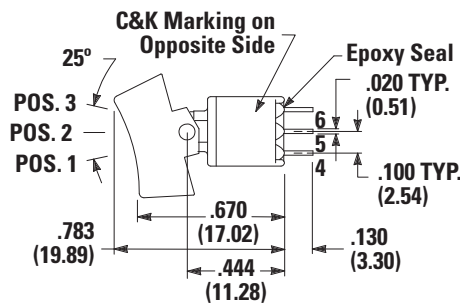
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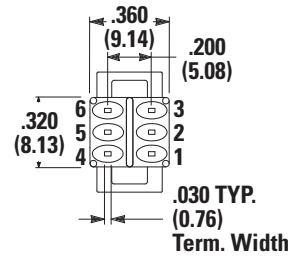


| No. Poles | Model No. | Switch Function | | | Connected Terminals | | | Schematic |
|-----------|-----------|------------------------------|--------|--------|---------------------|--------|---------|-----------|
| | | C&K marking on opposite side | | | | | | |
| | | POS. 1 | POS. 2 | POS. 3 | POS. 1 | POS. 2 | POS. 3 | |
| DP | ET21 | ON | NONE | ON | 2-3,5-6 | N/A | 2-1,5-4 | |
| | ET27 | | OFF | MOM. | | OPEN | | |
| | ET28 | | NONE | MOM. | | N/A | | |

DPDT



Part number shown: ET21J6CBE2



Terminal Nos. For Reference Only

Notes: MOM. = Momentary All models C&K US with all options when ordered with G, Q, R or S contact material.

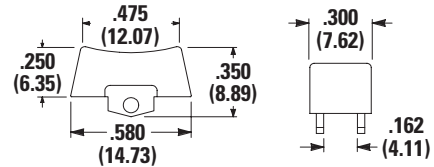
Actuator inches (mm)

| Option Code | Actuator Color |
|-------------|----------------|
| 2 | Black |
| 1 | White |
| 3 | Red |

Actuators available separately, see page 8. Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

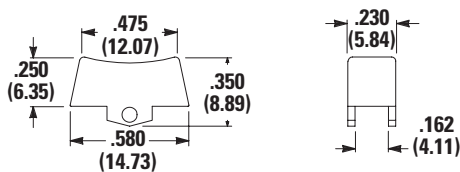
Notes: Internal o-ring actuator seal standard.

J1 Rocker



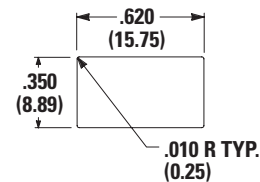
Note: Available with all models except ET0X with A & SA & SA1 terminations.

J6 Rocker

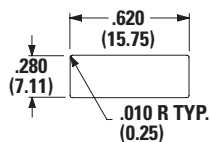


Note: Standard with ET0X model with A & SA & SA1 terminations.

Panel Mounting



Panel Mounting

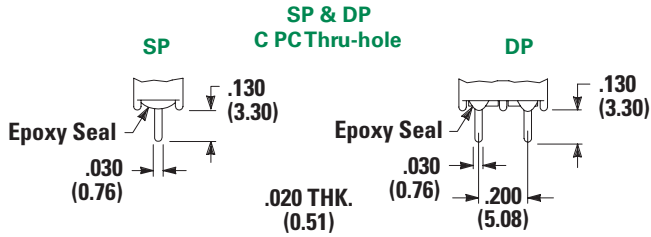


ET Series

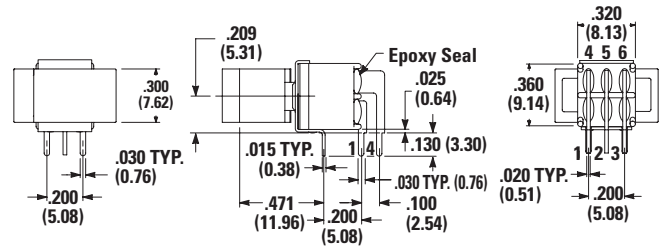
Sealed Subminiature Rocker Switches



Terminations inches (mm)

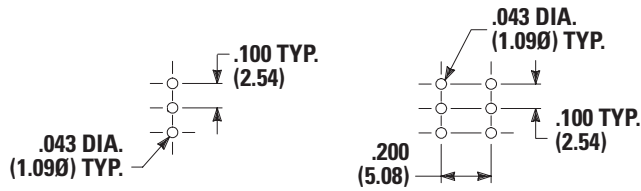


ET01J6ABE2 Horizontal Actuation SPDT
A Right Angle, PC Thru-hole



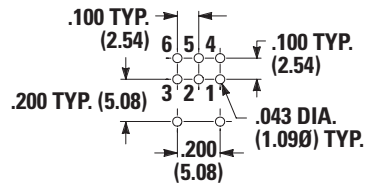
Note: Actuator Shown in Pos. 1

PC Mounting



Note: ET02 Models. Omit center hole.

PC Mounting



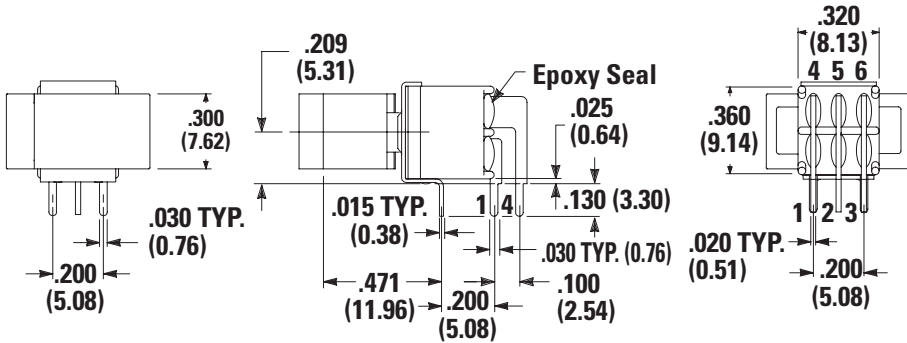
ET Series

Sealed Subminiature Rocker Switches

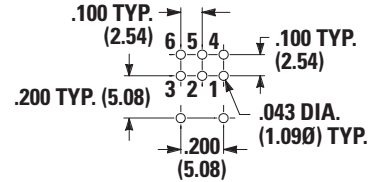


A Right Angle, PC Thru-hole

ET21J6ABE2 Horizontal Actuation DPDT

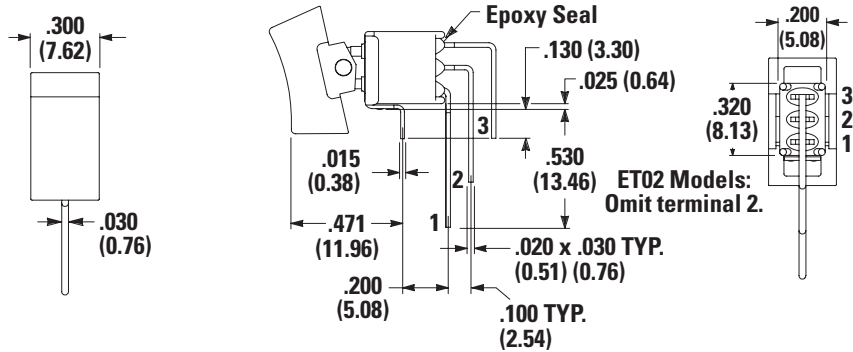


PC Mounting

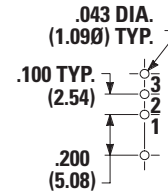


AV Vertical Right Angle, PC Thru-hole

ET01J1AVBE2 Vertical Actuation SPDT



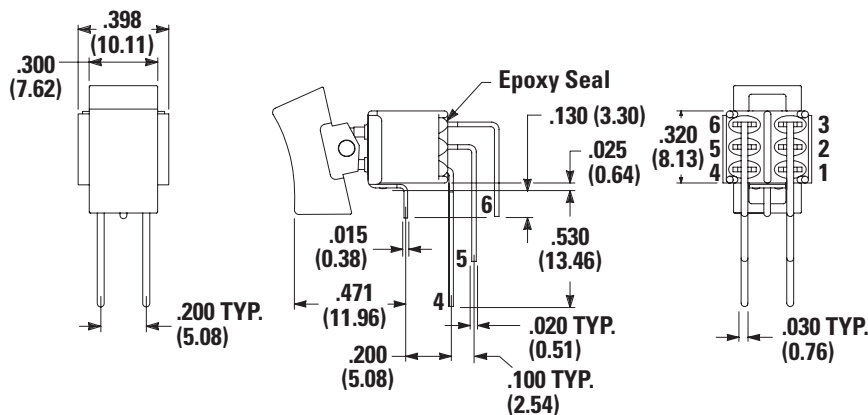
PC Mounting



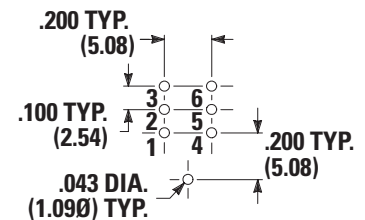
Notes: Terminal bend radii and lead-in manufacturing option.
 Actuator Shown in Pos. 1
 ET02 Models: Omit terminal 2

AV Vertical Right Angle, PC Thru-hole

ET21J1AVBE2 Vertical Actuation DPDT



PC Mounting



Notes: Terminal bend radii and lead-in manufacturing option.
 Actuator Shown in Pos. 1

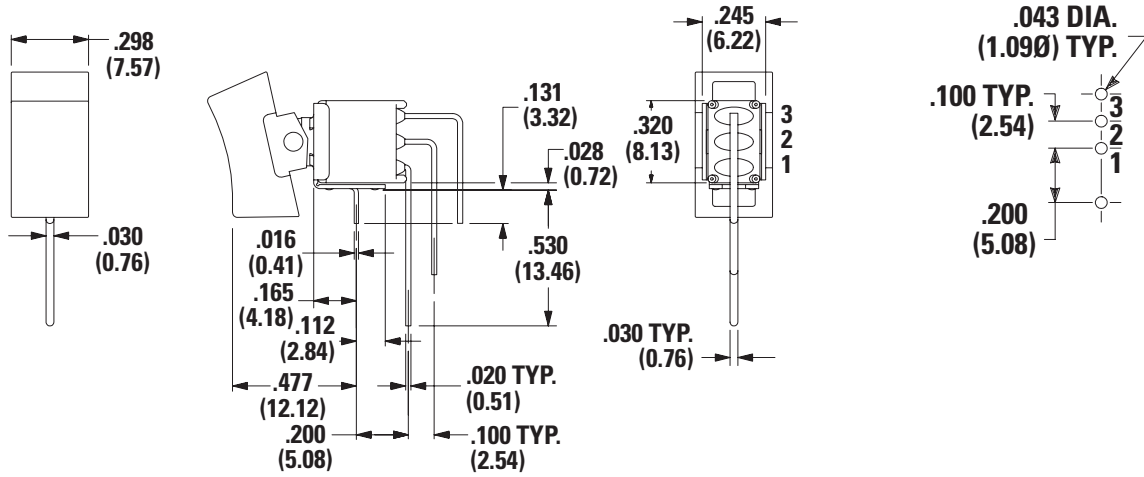
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Sealed Subminiature Rocker Switches



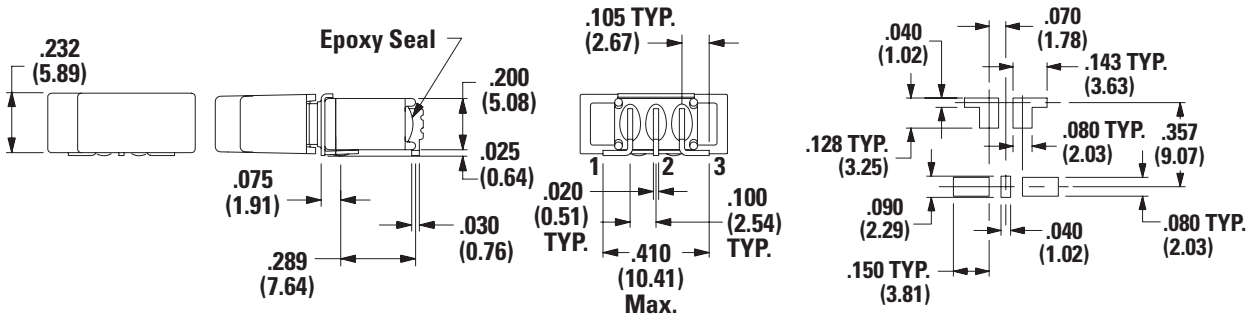
AV2 Vertical Right Angle, PC Thru-hole

ET01J1AV2BE2 Vertical Actuation SPDT



SA Right Angle, Surface Mount

ET01J6SAPE2 Horizontal Actuation SPDT



Notes: Standard with tape & reel packaging, see page G-44.
Available with P contact material only.

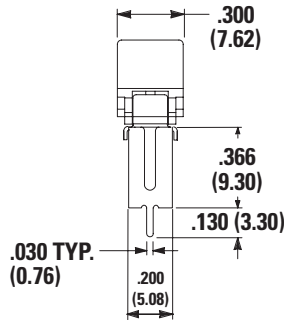
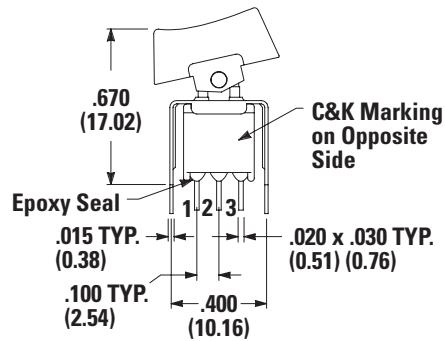
ET Series

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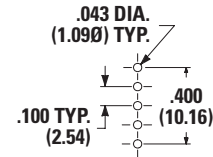


V3 Vertical Mount, V-Bracket

ET01J1V3BE2 SPDT



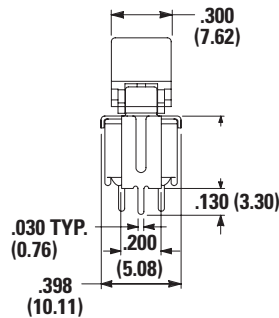
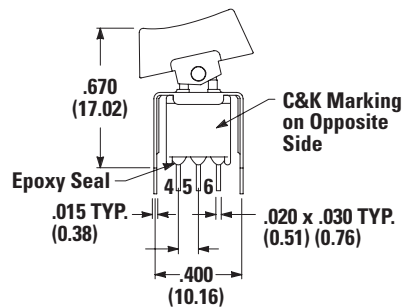
PC Mounting



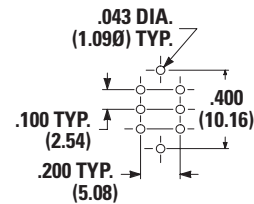
Note: Actuator shown in Pos. 1

V3 Vertical Mount, V-Bracket

ET21J1V3BE2 DPDT



PC Mounting



Note: Actuator shown in Pos. 1

Contact Material

| Option Code | Contact Material | Terminal Plating | | Ratings |
|-------------|---------------------------------|------------------------|--------------------------------|---|
| B | Gold ¹ | Gold ¹ | Low Level/Dry Circuit | 0.4 VA max. @ 20 V AC or DC max. |
| P | | Matte-Tin ⁶ | | |
| Q | Silver ^{4,5} | Silver ⁵ | Power | ETX1 models: 3 amps @ 120 V AC or 28 V DC. All other models: 2 amps @ 120 V AC or 28 V DC. |
| S | | Matte-Tin ⁶ | | |
| G | Gold over Silver ^{2,3} | Gold ³ | Low Level/Dry Circuit or Power | ETX1 models: 0.4 VA max. @ 20 V AC or DC max. or 3 amps @ 120 V AC or 28 V DC. All other models: 0.4 VA max @ 20 V AC or DC max. or 2 amps @ 120 V AC or 28 V DC. |
| R | | Matte-Tin ⁶ | | |

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

- 1. **Contacts & Terminals:** Copper alloy, with gold plate over nickel plate.
- 2. **End Contacts:** Coin silver, with gold plate over nickel plate.
- 3. **Center Contact & All Terminals:** Copper alloy, with gold plate over nickel plate.
- 4. **End Contacts:** Coin silver, silver plated.
- 5. **Center Contact & All Terminals:** Copper alloy, silver plated.
- 6. **Terminals:** Copper alloy, with matte-tin over nickel plate.

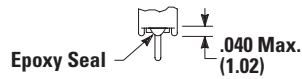
Any models supplied with Q, B, G, S, P & R contact material are RoHS compliant.
All models comply with all options when ordered with G, Q, S & R contact material.

ET Series

Sealed Subminiature Rocker Switches



Seal inches (mm) 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



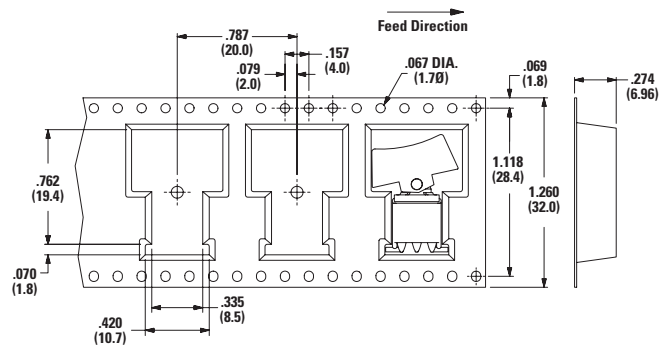
Part No.
621C01000 WHITE
621C02263 BLACK
621C03000 RED
Material: Nylon
Finish: Matte
For Hi Temp, Consult Factory

Note: Other colors available, consult Customer Service Center.

Tape & Reel SA Termination inches (mm) ET01J6SABE (Shown)

Reel Information

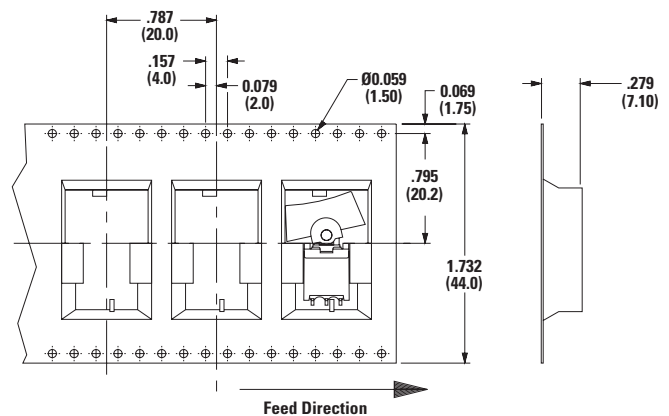
| | |
|-------------------|---------------|
| Outside Diameter | 13.00 (330.0) |
| Pilot Hole | 0.512 (13.0) |
| Quantity per Reel | 500 |



ET01J6SA1BE (Shown)

Reel Information

| | |
|-------------------|---------------|
| Outside Diameter | 13.00 (330.0) |
| Pilot Hole | 0.795 (20.20) |
| Quantity per Reel | 450 |



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