

### 1VL Detector Switches

Type: **ESE13**



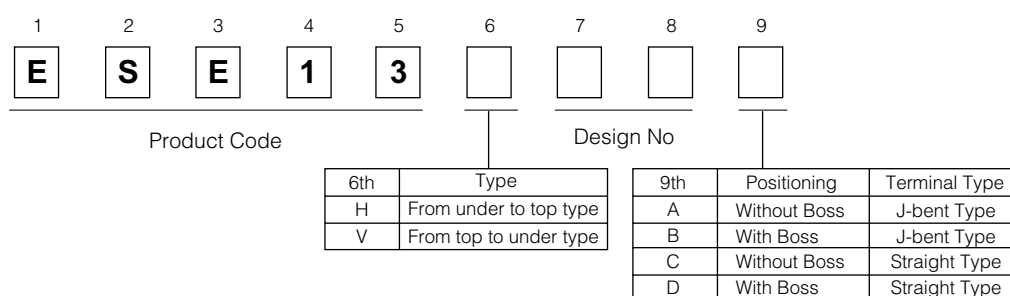
#### ■ Features

- Thin type : Height=1.2 mm
- Highly reliable contact
- SMD type (Embossed taping, Reflow soldering)

#### ■ Recommended Applications

- Detection of media in portable electronic equipment  
(Mobile phones / Digital still cameras / Camcorders)

#### ■ Explanation of Part Numbers



#### ■ Specifications

|                                 |        |                                                          |
|---------------------------------|--------|----------------------------------------------------------|
| Rating                          |        | 50 $\mu$ A 3 Vdc to 10 mA 5 Vdc (Resistive load)         |
| Contact Resistance              |        | 500 m $\Omega$ max. (Initial)                            |
| Insulation Resistance           |        | 100 M $\Omega$ min. (100 Vdc)                            |
| Dielectric Withstanding Voltage |        | 100 Vac for 1 minute                                     |
| Operating Force                 |        | 300 mN max.                                              |
| Mounting Height                 |        | 1.2 mm                                                   |
| Poles and Throws                |        | 1-pole 1-throw                                           |
| Full Travel (Pushing distance)  |        | Type V : 2.15 mm (2.15 mm)<br>Type H : 3.05 mm (2.15 mm) |
| Operating Life                  |        | 50000 cycles min.                                        |
| Temperature Range               |        | -10 °C to +60 °C                                         |
| Heat Resistance                 |        | +70 °C for 96 hours                                      |
| Low Temperature Resistance      |        | -25 °C for 96 hours                                      |
| Humidity Resistance             |        | +40 °C 90 % to 95 % RH for 96 hours                      |
| Minimum Quantity/Packing Unit   | ESE13H | 5000 pcs. Embossed Taping (Reel Pack)                    |
|                                 | ESE13V | 3000 pcs. Embossed Taping (Reel Pack)                    |
| Quantity/Carton                 | ESE13H | 30000 pcs.                                               |
|                                 | ESE13V | 18000 pcs.                                               |

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.  
Should a safety concern arise regarding this product, please be sure to contact us immediately.

00 Oct. 2012

### ■ Dimensions in mm (not to scale)

|              |                                                    |                                                                  |                                                                     |
|--------------|----------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>No. 1</b> | <b>ESE13V J-bent terminals</b><br>1-pole 1-throw   | <p>With boss<br/>ESE13V01B</p> <p>Without boss<br/>ESE13V01A</p> | <p>PWB mounting hole for reference<br/>(Pitch tolerance: ±0.05)</p> |
| <b>No. 2</b> | <b>ESE13V Straight terminals</b><br>1-pole 1-throw | <p>With boss<br/>ESE13V01D</p> <p>Without boss<br/>ESE13V01C</p> | <p>PWB mounting hole for reference<br/>(Pitch tolerance: ±0.05)</p> |
| <b>No. 3</b> | <b>ESE13H J-bent terminals</b><br>1-pole 1-throw   | <p>With boss<br/>ESE13H01B</p> <p>Without boss<br/>ESE13H01A</p> | <p>PWB mounting hole for reference<br/>(Pitch tolerance: ±0.05)</p> |

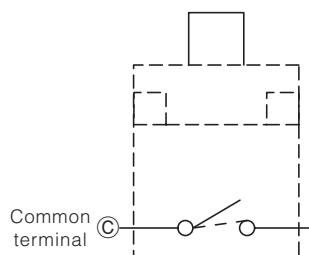
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■ Dimensions in mm (not to scale)

| No. 4                     | ESE13H Straight terminals<br>1-pole 1-throw                                         |
|---------------------------|-------------------------------------------------------------------------------------|
| With boss<br>ESE13H01D    |                                                                                     |
| Without boss<br>ESE13H01C |                                                                                     |
|                           | <p>PWB mounting hole for reference<br/>(Pitch tolerance: <math>\pm 0.05</math>)</p> |

### ■ Circuit Diagram

1-pole 1-throw (N.O)

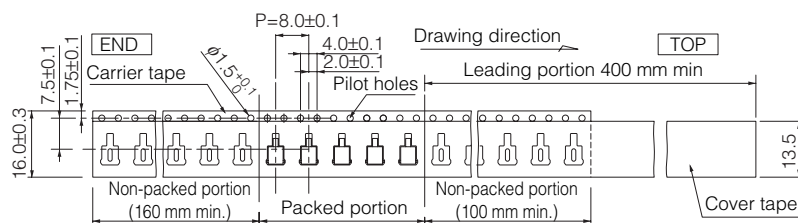
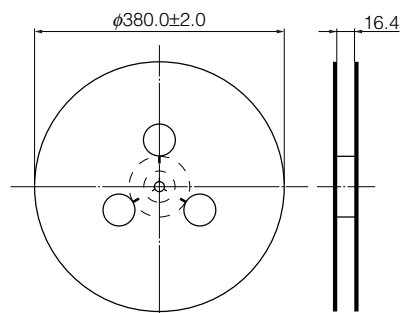


## ■ Packaging Specifications

Standard Reel Dimensions in mm (not to scale)

## Taping Reel

## Embossed Carrier Taping



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