

#### Ratings

Maximum operating voltage: 48 V

Maximum operating current: 8 A (not mated under load)

#### **Operating Temperature Range**

-40 ~ 130 °C, relative humidity of 85% or less

#### Materials

1)Insulator: LCP, black UL 94 V-0

(2)Spring contact: C5191 phosphor bronze, silver plated

(3) Switch contact: C3604 brass, silver plated

(4)Pin: zinc alloy, nickel plated

(5) Shell: SPCC, nickel plated

(6) Front plate: SUS301

## **Electrical Requirements**

Dielectric strength: 1 min @ 500 Vac Insulation resistance: 100 MΩ @ 250 Vdc

Contact resistance: 30 m $\Omega$  or less

# **Mechanical Requirements**

Insertion force: 0.5-3 kaf Withdrawal force: 0.5-3 kgf

Life cycle: 5000 mating cycles while maintaining 30% initial values. withdrawal force and less than 100 m $\Omega$  contact resistance.

#### Soldering

Solderability: 90% minimum coverage when terminals dipped 2mm in 260  $\pm 5$  °C solder bath for 3  $\pm 0.5$  seconds

Solder bath durability: no deformation when immersed in 265  $\pm 5$  °C up to surface of the board 1.6 mm for 10 seconds or less

Solder iron durability: no deformation when exposed to 350  $\pm$ 10 °C for 5 ±0.5 seconds

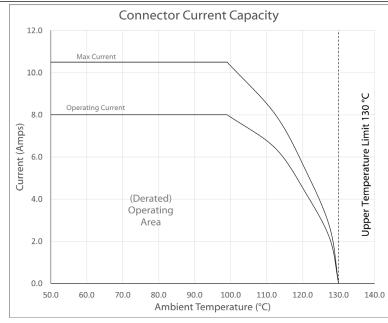
# **Environmental Requirements**

Cold test:  $-40 \pm 2$  °C for 48 hours without deformation Heat test: 85 °C for 48 hours without deformation Humidity test: 40 °C, relative humidity 90-95% for 48 hours without deformation

Salt spray test: 35 °C, relative humidity 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 m $\Omega$ .

### **Packaging**

300 pieces/ reel 12 reels/ box



T (°C) 265 °C 255 °C 180°C Max: 10 sec 2-4 °C/s Max: 6 °C/s 6 min Reflow soldering temperature profile

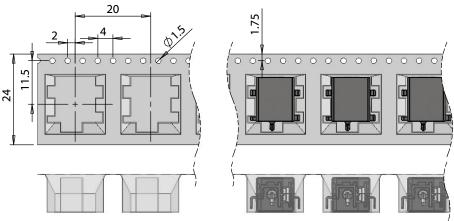
20pcs empty at the

the reel

beginning and end of

0 0 0

Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings, mating cables, or other circuitry. Operating current curve (derated by 20% of maximum values) accounts for external factors, and manufacturing variation.



|           |           |                 | , , ,     |   |            |   |
|-----------|-----------|-----------------|-----------|---|------------|---|
| Revision: | Date:     | Description:    | Prepared: | Notes:  |            |   |
| Α         | 10/1/2020 | Initial release |           | RoHS compliant  |            | ENSILITY  |
|           |           |                 | Verified: | Function test: no open, no short circuit, no intermittent | te         | 1 1.541.323.3228 800 877.670.7118<br>x 1.541.323.4202 web tensility.com |
|           |           |                 | _         | Description:  | Size:      | Part number:  |
|           |           |                 |           | Connector, dc jack 5.5x2.1 mm, PCB mount, 180°,           | A 54-00253 |   |
|           |           | _               |           | silver plated, LCP, board cut thru hole                   |            | 1:1 Sheet 2 of 2  |