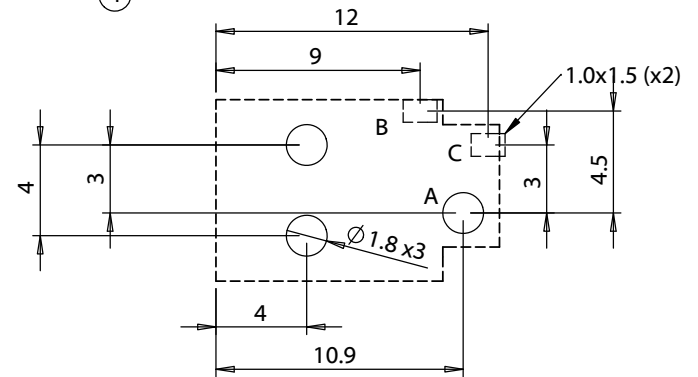
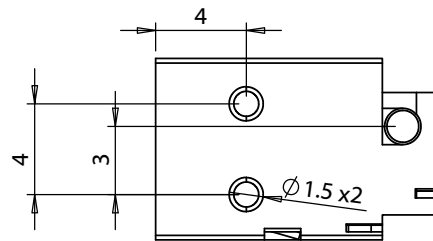
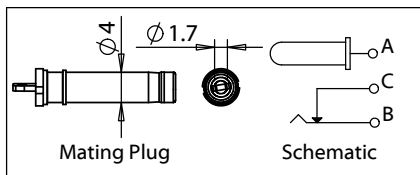
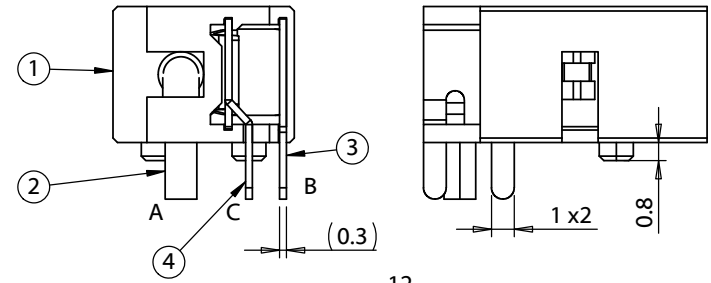
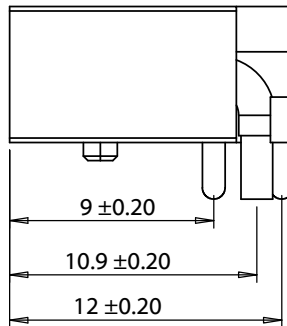
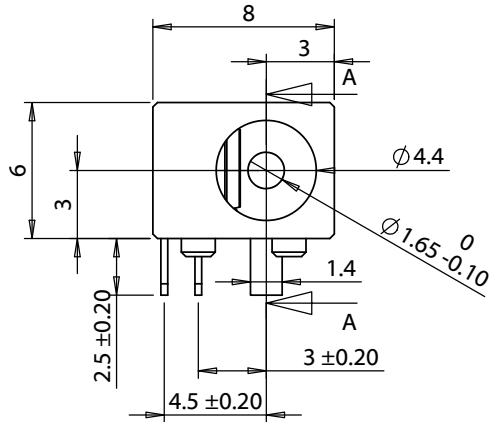
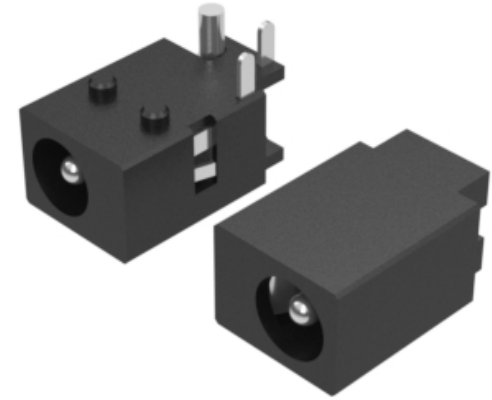
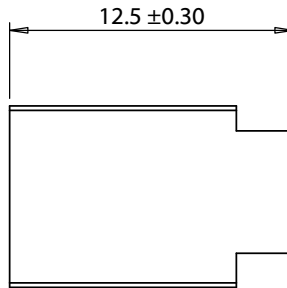


SECTION A-A



PCB Layout

Revision:	Date:	Description:	Prepared:	Notes:	<h1>TENSILITY</h1> tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com
A	7/8/2021	Initial release		RoHS compliant	
			Verified:	Function test: no open, no short circuit, no intermittent	Size: Part number: A 54-00288
			Dimensions are in millimeters. Tolerances: X: ± 0.2 mm X.X: ± 0.2 mm X.XX: ± 0.2 mm	Description: Connector, dc jack 4.0x1.7 mm, PCB mount, 90°, silver plated, PA9T, thru hole	
					Scale: 3:1

**Ratings**

Voltage: 48 V  
 Current: 6.5 A (not mated under load)

**Operating Temperature Range**

-40~105 °C, relative humidity of 85% or less

**Materials**

- ① Insulator: PA9T, black
- ② Pin: C3604 brass, nickel plated
- ③ Shell contact: C3604 brass, silver plated
- ④ Switch contact: C5191 phosphor bronze, silver plated

**Electrical Requirements**

Dielectric strength: 1 min @ 500 Vac  
 Insulation resistance: 100 MΩ @ 500 Vdc  
 Contact resistance: 30 mΩ or less

**Mechanical Requirements**

Insertion force: 0.3-3 kgf  
 Withdrawal force: 0.3-3 kgf  
 Life cycle: 5000 mating cycles while maintaining 0.3 kgf min. insertion force, 0.2 kgf min. withdrawal force and less than 100 mΩ contact resistance.

**Soldering**

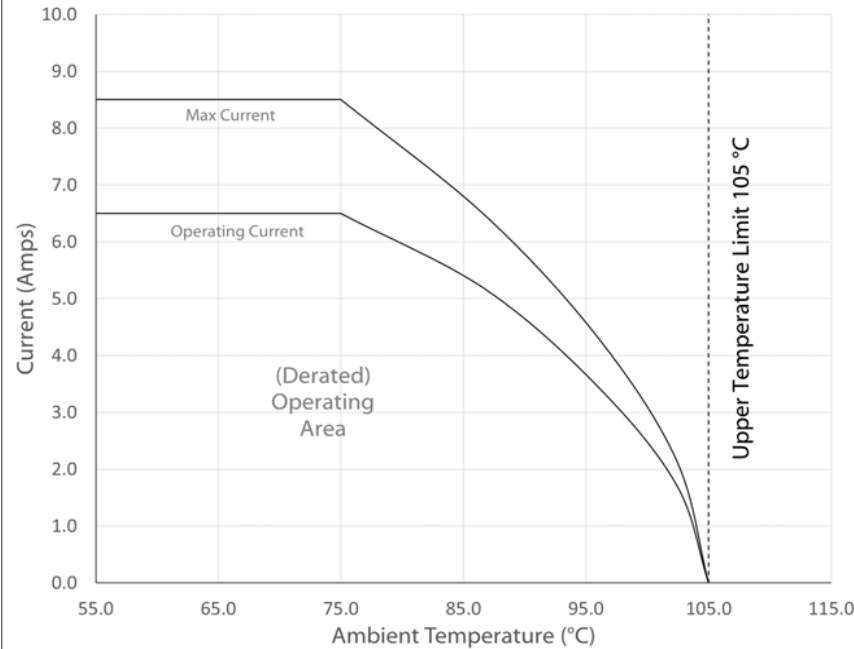
Solderability: 90% minimum coverage when terminals dipped 2mm in 260 ±5 °C solder bath for 3 ±0.5 seconds  
 Solder bath durability: no deformation when immersed in 260 ±5 °C up to surface of the board 2.0 mm for 5 seconds or less  
 Solder iron durability: no deformation when exposed to 350 ±10 °C for 3 ±0.5 seconds

**Environmental Requirements**

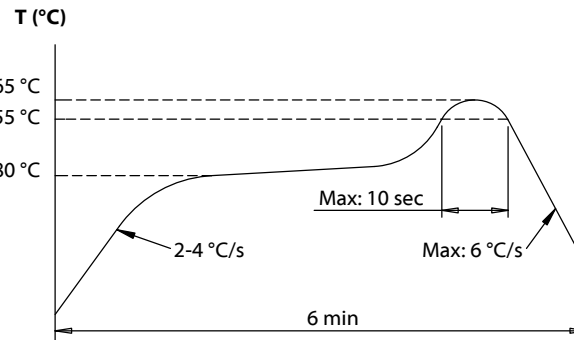
Cold test: -25 ±3 °C for 48 hours without deformation  
 Heat test: 85 °C, relative humidity 70-85% for 96 hours without deformation  
 Humidity test: 40 °C, relative humidity 90-100% for 96 hours without deformation  
 Salt spray test: 35 °C, relative humidity 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 mΩ.

**Packaging Info:**

Connectors packaged bulk 1000 pieces in sealed PE bag

**Connector Current Capacity**

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.



Reflow soldering temperature profile

Revision:	Date:	Description:	Prepared:	Notes:	<h1>TENSILITY</h1> <p>tel 1.541.323.3228 800 877.670.7118          fax 1.541.323.4202 web tensility.com</p>
A	7/8/2021	Initial release	Verified:	RoHS compliant	
				Function test: no open, no short circuit, no intermittent	
				Description: Connector, dc jack 4.0x1.7 mm, PCB mount, 90°, silver plated, PA9T, thru hole	
				Size: A	Part number: <b>54-00288</b>
				Scale: 3:1	Sheet 2 of 2