





P.C.B Layout

Revision:	Date:	Description:	Prepared:	Notes:	<div>TENSILITY</div> <div>tel 1.541.323.3228 800 877.670.7118</div> <div>fax 1.541.323.4202 web tensility.com</div>		
A	4/7/2020	Initial release					
			Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.2 mm X.XX: ± 0.2 mm	Function test: no open, no short circuit, no intermittent			
				Description:	Size:	Part number:	
				Connector, 4C audio jack, 3.5xL14 mm, thru hole, gold plated	A	54-00176	
				Scale:	3:1	 	Sheet 1 of 2

Ratings

Voltage: 48 V
Current: 0.5 A

Operating Temperature Range

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

Materials

- ① #1 contact: phosphor bronze, gold plating
- ② #2 contact: phosphor bronze, gold plating
- ③ #3 contact: phosphor bronze, gold plating
- ④ #4 contact: phosphor bronze, gold plating
- ⑤ #5 contact: phosphor bronze, gold plating
- ⑥ #6 contact: phosphor bronze, gold plating
- ⑦ Housing: PA9T, black, UL 94 V-0

Electrical Requirements

Dielectric strength: 1 min @ 500 Vac
Insulation resistance: 100 MΩ @ 250 Vdc
Contact resistance: 30 mΩ or less at 1 KHz

Mechanical Requirements

Insertion force: 0.3-2 kgf
Withdrawal force: 0.3-2 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
Terminal strength: 500 gf applied in one direction to the tip of the
terminal for 1 second without mechanical or electrical damage

Soldering

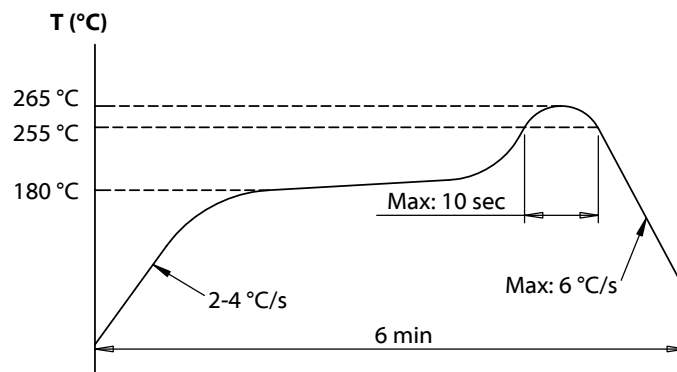
Solderability: 90% minimum coverage when terminals dipped 2mm
in 260 ± 5 °C solder bath for 3 ± 0.5 seconds
Solder bath durability: no deformation when immersed in 255 ± 5 °C
up to surface of the board 1.6 mm for 5 seconds or less
Solder iron durability: no deformation when exposed to 350 ± 10 °C
for 5 seconds or less

Environmental Requirements

Cold test: -40 ± 2 °C for 48 hours without deformation
Heat test: 70 °C, relative humidity 70-85% for 96 hours
without deformation
Humidity test: 40 ± 2 °C, relative humidity 90-100% for 96 hours
without deformation
Salt spray test: 35 ± 2 °C, 5% NaCl mist for 24 hrs. Wash parts after
test. No remarkable corrosion shall be present

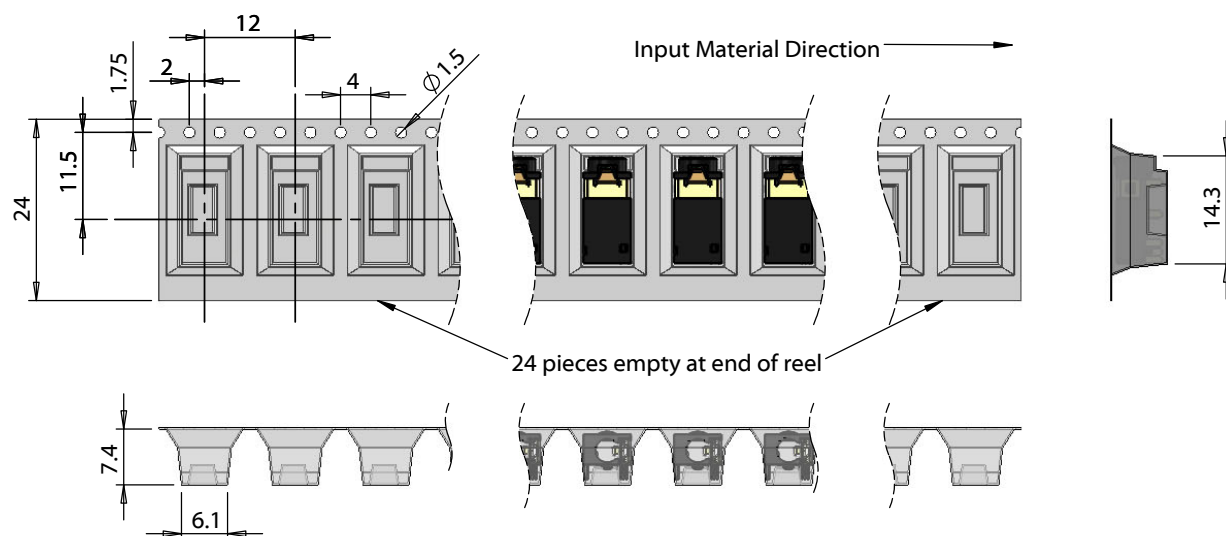
Packaging

1000 pieces/ reel
12 reels/ box



Reflow soldering temperature profile

Packaging Detail



Revision:	Date:	Description:	Prepared:	Notes:	<div style="text-align: center;"> <h1>TENSILITY</h1> <p>tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com</p> </div>		
A	4/7/2020	Initial release	Verified:	RoHS compliant Function test: no open, no short circuit, no intermittent			
			Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.2 mm	Description: Connector, 4C audio jack, 3.5xL14 mm, thru hole, gold plated	Size: A	Part number: 54-00176	<div style="text-align: center;"> <p>Sheet 2 of 2</p> </div>
					Scale: 1:1		