

Revision:	Date:	Description:	Prepared:	Notes:	TENSILITY
A	10/1/2020	Preliminary	AW <small>Digitally signed by AW Date: 2020.10.13 13:23:21 -07'00'</small>	RoHS compliant	
			Verified:	Function test: no open, no short circuit, no intermittent	tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com
			AG <small>Digitally signed by AG Date: 2020.10.13 15:38:00 -07'00'</small>	Description:	Size: Part number:
			Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.2 mm X.XX: ± 0.2 mm	Connector, dc jack 5.5x2.1 mm, PCB mount, 180°, silver plated, LCP, board cut thru hole	A 54-00255
					Scale: 3:1
					Sheet 1 of 2

Ratings

Maximum operating voltage: 48 V
 Maximum operating current: 7.5 A (not mated under load)

Operating Temperature Range

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

Materials

- ① Insulator: LCP, black, UL94 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: C3604 brass, nickel plated
- ⑥ Front plate: SUS301
- ⑦ Pin holder: LCP, UL94 V-0

Electrical Requirements

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

Mechanical Requirements

Insertion force: 0.5-3 kgf
 Withdrawal force: 0.5-3 kgf
 Life cycle: 5000 mating cycles while maintaining 30% initial values.
 withdrawal force and less than 100 mΩ contact resistance.

Soldering

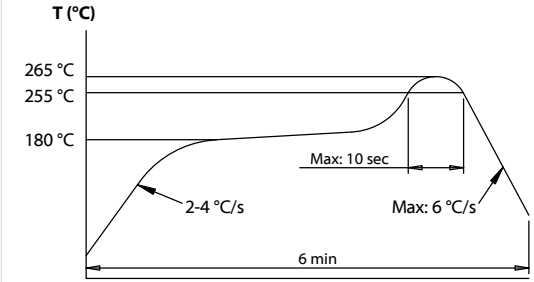
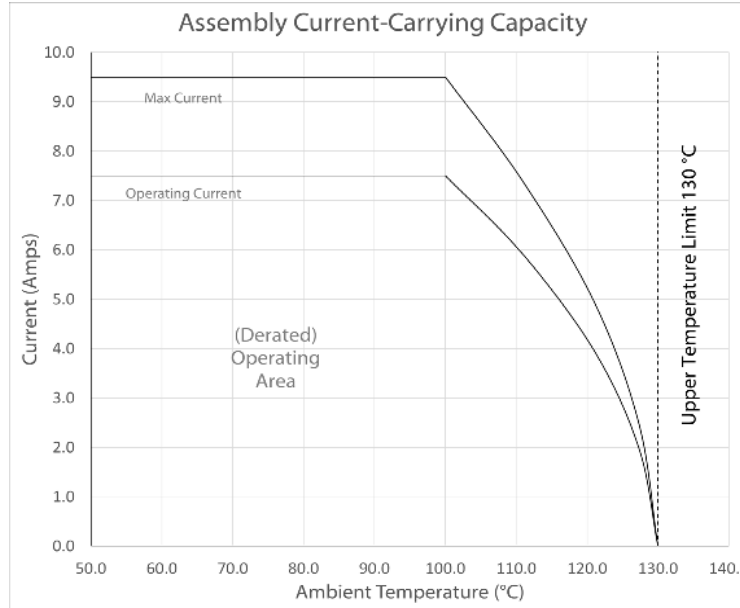
Solderability: 90% minimum coverage when terminals dipped 2mm in 260 ±5 °C solder bath for 3 ±0.5 seconds
 Solder bath durability: no deformation when immersed in 265 ±5 °C up to surface of the board 1.6 mm for 10 seconds or less
 Solder iron durability: no deformation when exposed to 350 ±10 °C for 5 ±0.5 seconds

Environmental Requirements

Cold test: -40 ±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 mΩ.

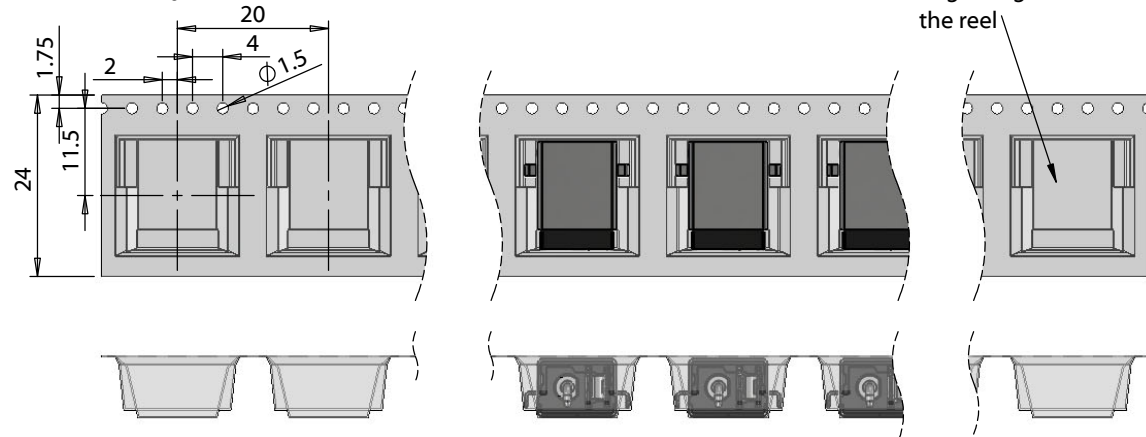
Packaging

400 pieces/ reel
 12 reels/ box



Reflow soldering temperature profile

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.



20pcs empty at the beginning and end of the reel

Revision:	Date:	Description:
A	10/1/2020	Preliminary

Prepared: AW
 Digitally signed by AW
 Date: 2020.10.13 13:23:41 -07'00'

Verified: AG
 Digitally signed by AG
 Date: 2020.10.13 15:38:18 -07'00'

Notes:
 RoHS compliant

Function test: no open, no short circuit, no intermittent

Description:
 Connector, dc jack 5.5x2.1 mm, PCB mount, 180°, silver plated, LCP, board cut thru hole

TENSILITY

tel 1.541.323.3228 800 877.670.7118
 fax 1.541.323.4202 web tensility.com

Size: Part number:
 A 54-00255

Scale: 1:1 Sheet 2 of 2