

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	07/03/2019	Initial release	<b>GL</b> <small>Digitally signed by GL Date: 2019.07.03 09:45:19 -07'00'</small>	RoHS compliant					
			<b>AW</b> <small>Digitally signed by AW Date: 2019.07.03 10:08:43 -07'00'</small>	Function test: no open, no short circuit, no intermittent	<table border="1"> <tr> <td>Size:</td> <td>Part number:</td> </tr> <tr> <td>A</td> <td>54-00164</td> </tr> </table>	Size:	Part number:	A	54-00164
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A	54-00164								
			Dimensions are in millimeters. Tolerances: < 1.0: ± 0.1 mm 1.0 to 10.0: ± 0.2 mm > 10.0: ± 0.3 mm	Description: Connector, dc jack 5.5x2.1 mm, PCB mount, 90°, silver plated, PA9T, SMT	<table border="1"> <tr> <td>Scale:</td> <td>3:1</td> <td></td> <td>Sheet 1 of 3</td> </tr> </table>	Scale:	3:1		Sheet 1 of 3
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**Ratings**

Maximum operating voltage: 48 V  
 Maximum operating current: 5.5 A (not mated under load)

**Operating Temperature Range**

20°C to 70°C, relative humidity of 85% or less

**Materials**

- ① Insulator: PA9T, black black
- ② Cover: PA9T, black
- ③ Center Pin: copper alloy, nickel plated
- ④ Terminal: brass, silver plated
- ⑤ Spring contact: phosphor bronze, silver plated

**Electrical Requirements**

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

**Mechanical Requirements**

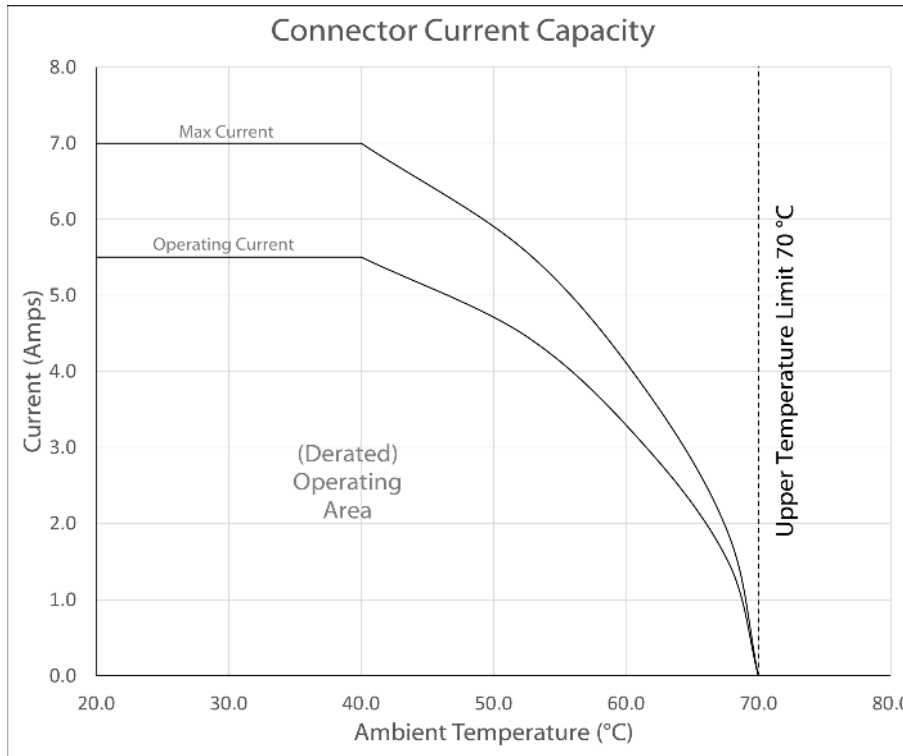
Insertion force: 0.3-3.0 kgf  
 Withdrawal force: 0.3-3.0 kgf  
 Life cycle: 5000 mating cycles while maintaining contact resistance: 100 mΩ maximum, withstand voltage: 500 Vac, 1 min  
 Terminal strength: 500 gf applied to the terminal for 60 seconds in any direction while maintaining electrical characteristics and without damage or excessive looseness of terminals

**Soldering**

Solderability: 90% minimum coverage when terminals dipped 2mm in 260 ±5 °C solder bath for 3 ±0.5 seconds  
 Solder iron durability: no deformation when exposed to 350 ±10 °C for 3 ±0.5 seconds

**Environmental Requirements**

Cold test: -40 ±2 °C for 48 hours without deformation while maintaining contact resistance: 50 mΩ maximum, insulation resistance: 100 MΩ @ 250 Vdc minimum, and no sign of damage mechanically or electrically  
 Heat test: 85 ±2 °C, relative humidity 45-85% for 48 hours while maintaining contact resistance: 50 mΩ maximum, insulation resistance: 100 MΩ @ 250 Vdc minimum, and no sign of damage mechanically or electrically  
 Humidity test: 40 ±2 °C, relative humidity 90-95% for 48 hours while maintaining contact resistance: 50 mΩ maximum, insulation resistance: 100 MΩ @ 250 Vdc minimum, and no sign of damage mechanically or electrically



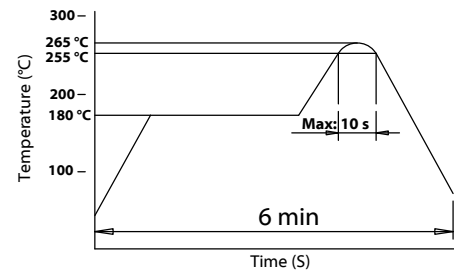
Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings, mating cables, or other circuitry. Operating current curve (derated by 20% of maximum values) accounts for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

**Reflow Soldering Temperature Profile**

Pb - Free Flow Profile

Solder conditions vary depending on reflow soldering equipment.

The surface temperature of the jack must not exceed 265 °C.



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 09:45:36 -07'00'

Verified: **AW**  
Digitally signed by AW  
 Date: 2019.07.03  
 10:08:57 -07'00'

Dimensions are in millimeters.  
 Tolerances:  
 < 1.0: ± 0.1 mm  
 1.0 to 10.0: ± 0.2 mm  
 > 10.0: ± 0.3 mm

Notes:  
 RoHS compliant

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

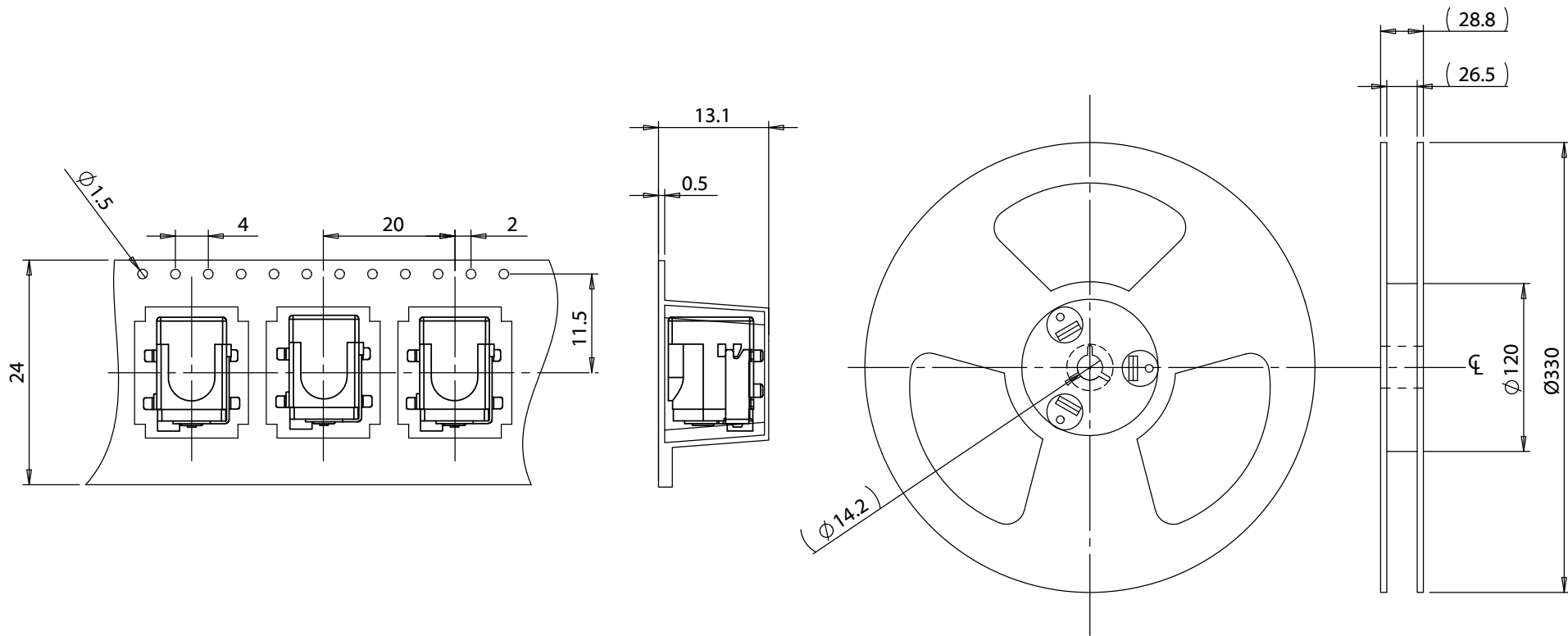
Description:  
 Connector, dc jack 5.5x2.1 mm, PCB mount, 90°, silver plated, PA9T, SMT

**TENSILITY**

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Size: A Part number: 54-00164

Scale: 1:1 Sheet 2 of 3



Not to scale

Not to scale

Packaging details:  
 24 m per reel  
 250 pcs. per reel

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			<b>AW</b> <small>Digitally signed by AW              Date: 2019.07.03              10:09:09 -07'00'</small>	Function test: no open, no short circuit, no intermittent	Size: A
			Dimensions are in millimeters. Tolerances: < 1.0: $\pm 0.1$ mm 1.0 to 10.0: $\pm 0.2$ mm > 10.0: $\pm 0.3$ mm	Description: Connector, dc jack 5.5x2.1 mm, PCB mount, 90°, silver plated, PA9T, SMT	Part number: 54-00164
					Scale: 5:1