

Revision:	Date:	Description:	Prepared:	Notes:	<h1>TENSILITY</h1>
A	9/20/2018	Initial release	Verified:		
			Dimensions are in millimeters. Tolerances: < 1.0: ± 0.1 mm 1.0 to 10.0: ± 0.2 mm > 10.0: ± 0.3 mm	Description:	Size:    Part number: A      54-00135
				Connector, dc jack 5.5x2.1 mm, PCB mount, 90°, silver plated, SMT	Scale: 3:1        Sheet 1 of 3

**Ratings**

Maximum operating voltage: 48 V  
 Maximum operating current: 4.5 A (not mated under load)

**Operating Temperature Range**

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

**Materials**

- ① Insulator: Nylon 46, black
- ② Cover: Nylon 46, 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 @ 500 Vdc minimum  
 Contact resistance: 50 mΩ maximum

**Mechanical Requirements**

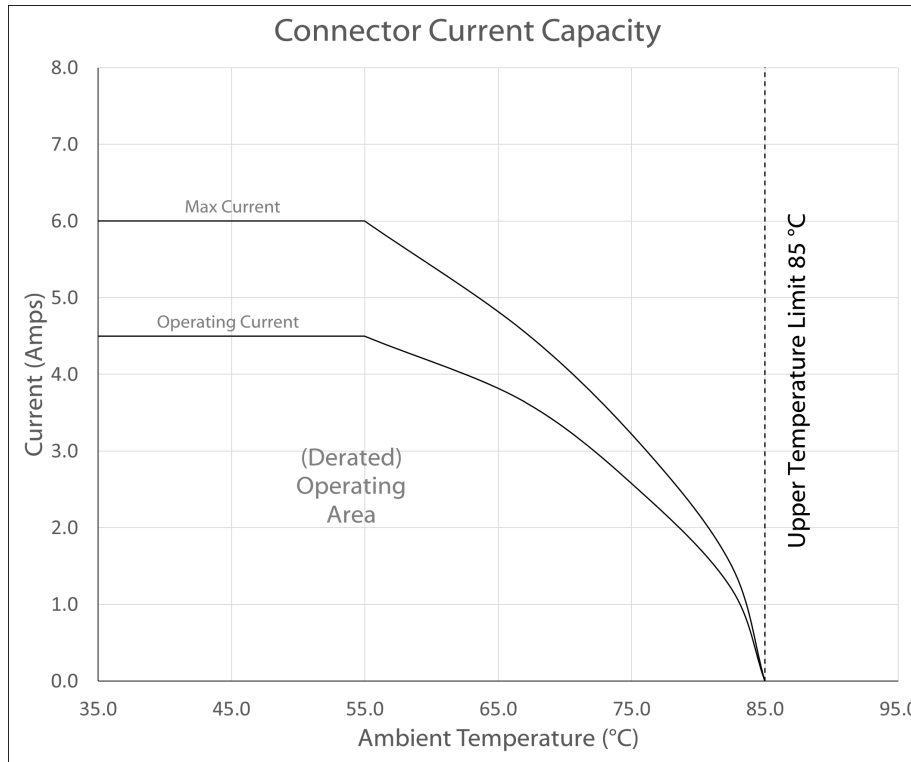
Insertion force: 0.6-1.6 kgf  
 Withdrawal force: 0.5-1.5 kgf  
 Life cycle: 5000 mating cycles while maintaining contact resistance: 100 mΩ maximum, withstand voltage: 500 Vac, 1 min  
 Terminal strength: 300 gf applied to the terminal for 15 seconds in any direction while maintaining electrical characteristics and without damage or excessive looseness of terminals

**Soldering**

Solderability: 75% minimum coverage when terminals dipped 2mm in 255 ±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 1.6 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 ±2 °C, relative humidity 45-85% for 48 hours without deformation  
 Humidity test: 40 ±2 °C, relative humidity 90-95% for 48 hours without deformation



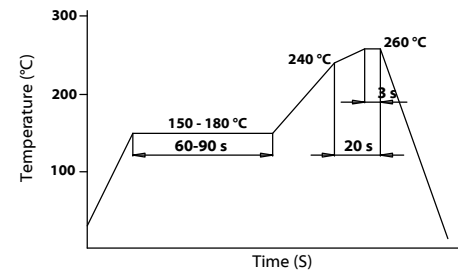
Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings, mating cables, or other circuitry. Operating current curve (derated by 20% of maximum values) accounts for 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 260 °C.



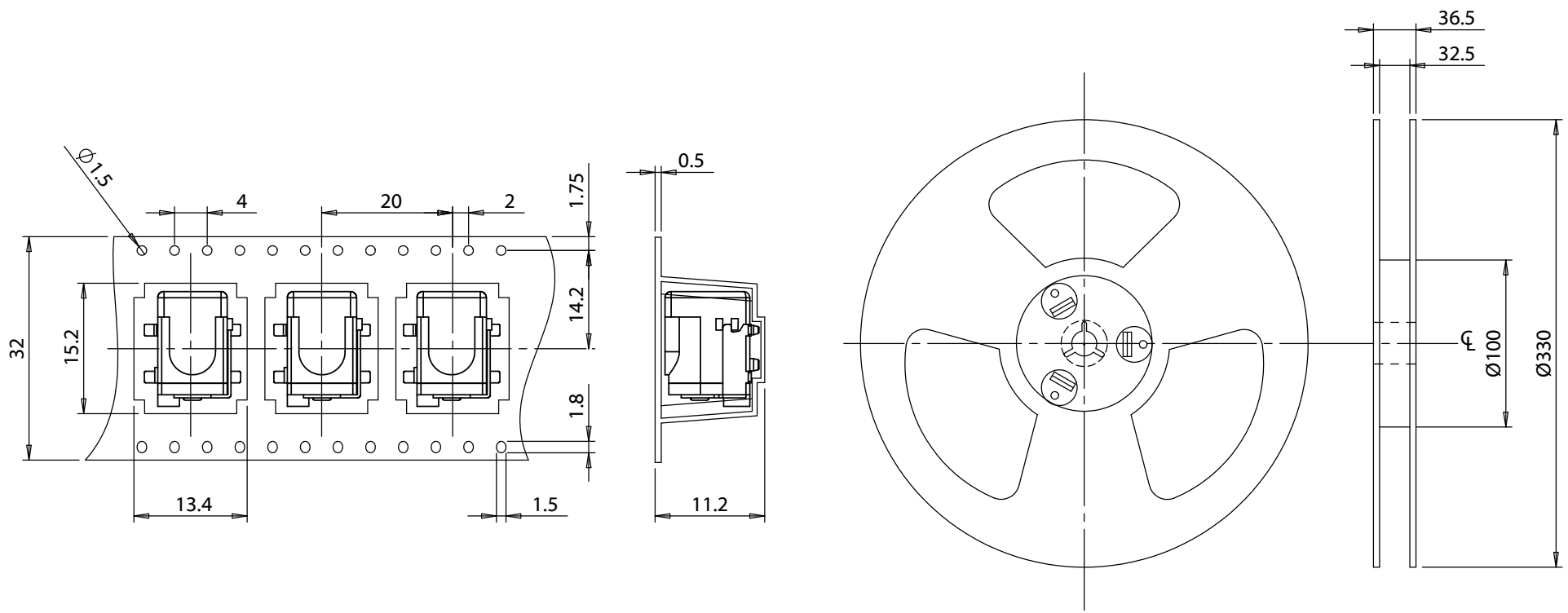
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Notes: Function test: no open, no short circuit, no intermittent
Description: Connector, dc jack 5.5x2.1 mm, PCB mount, 90°, silver plated, SMT

**TENSILITY**  
 tel 1.541.323.3228 800 877.670.7118  
 fax 1.541.323.4202 web tensility.com


Size: A	Part number: 54-00135
Scale: 1:1	Sheet 2 of 3



Not to scale

Not to scale

Packaging details:  
6.6 m per reel  
300 pcs. per reel

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				Scale: 5:1		Sheet 3 of 3