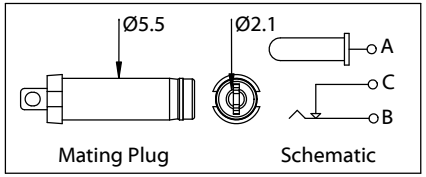
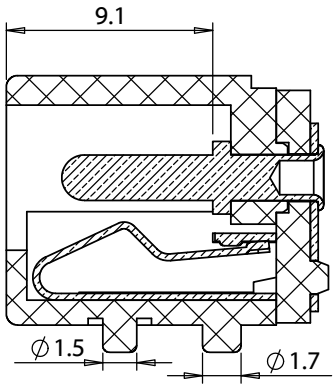
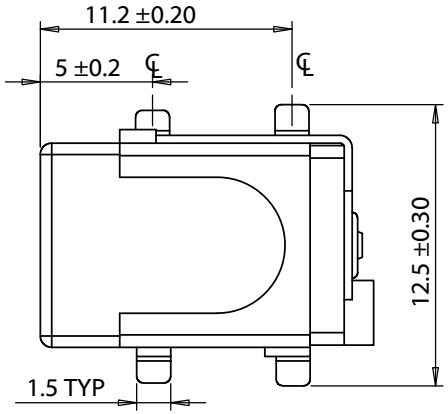
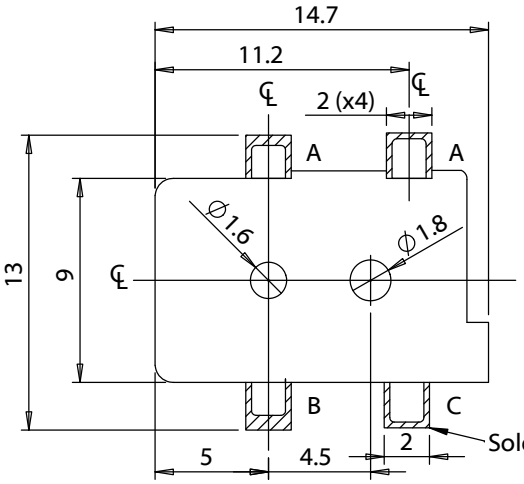


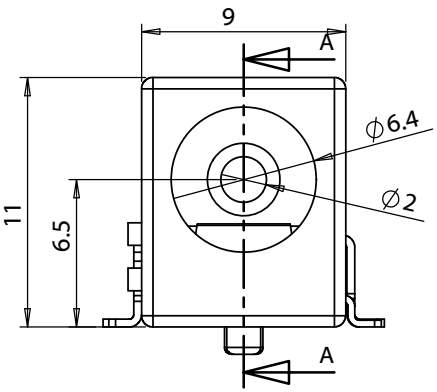


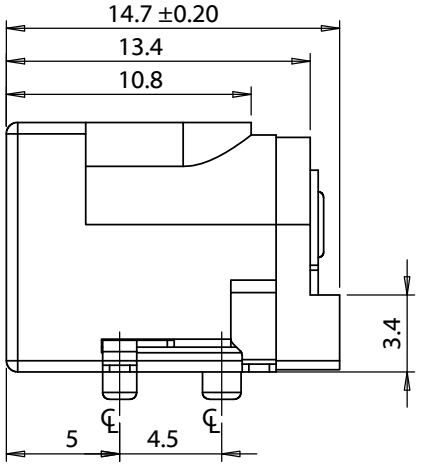
SECTION A-A

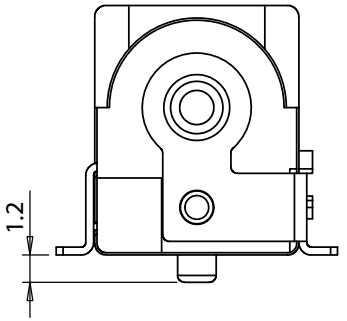




P.C.B. Layout







Revision:	Date:	Description:
A	07/03/2019	Initial release

Prepared: GL Digitally signed by GL Date: 2019.07.03 09:45:19 -07'00'

Verified: AW Digitally signed by AW Date: 2019.07.03 10:08:43 -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
tel 1.541.323.3228 *800* 877.670.7118
fax 1.541.323.4202 *web* tensility.com

Size: A

Part number: 54-00164

Scale: 3:1

Sheet 1 of 3

5 4 3 2 1

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

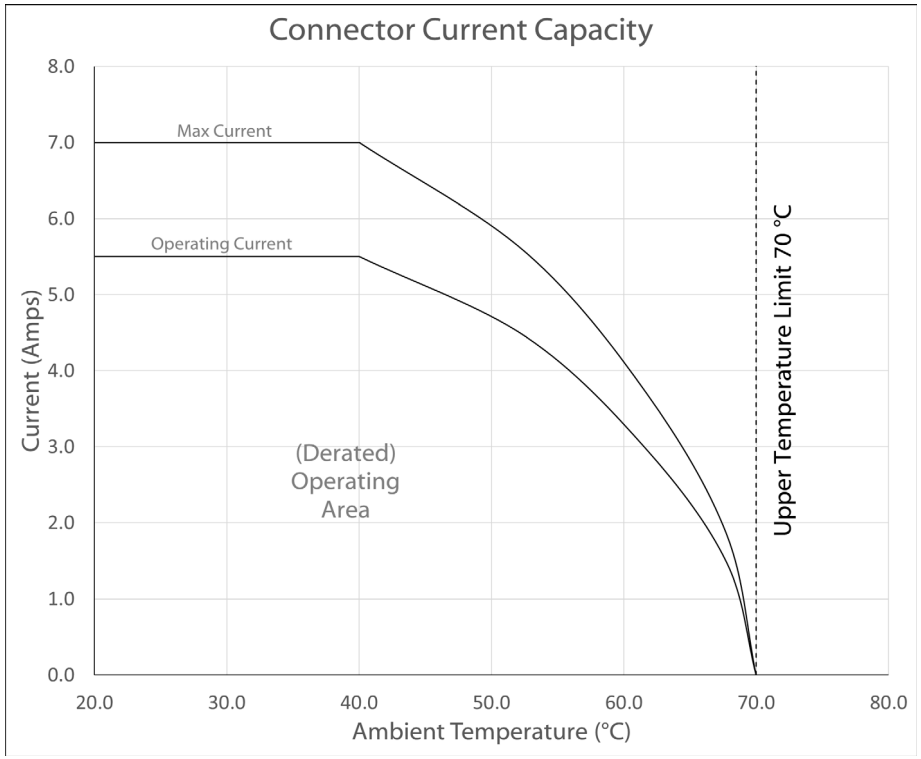
Materials
① Insulator: PA9T, black black
② Cover: PA9T, black
③ Center Pin: copper alloy, nickel plated
④ Terminal: brass, silver plated
⑤ Spring contact: phosphor bronze, silver plated

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



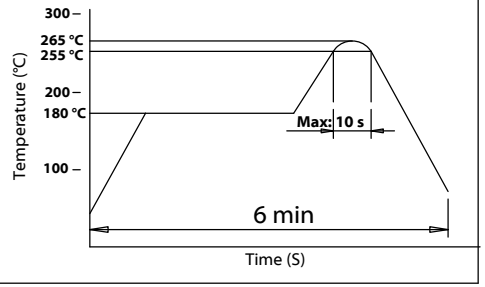
Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings,mating cables, or other circuitry. Operating current curve (derated by 20% of maximum values) accounts for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



Revision:	Date:	Description:
A	07/03/2019	Initial release

Prepared: GL Digitally signed by GL Date: 2019.07.03 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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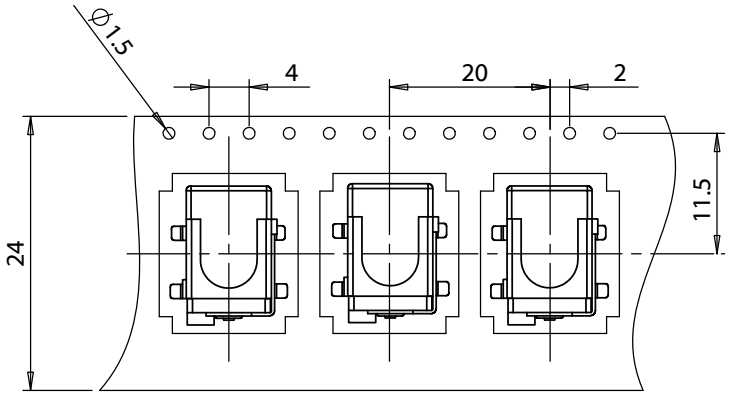
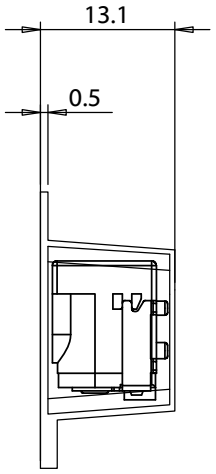
fax 1.541.323.4202 web tensility.com

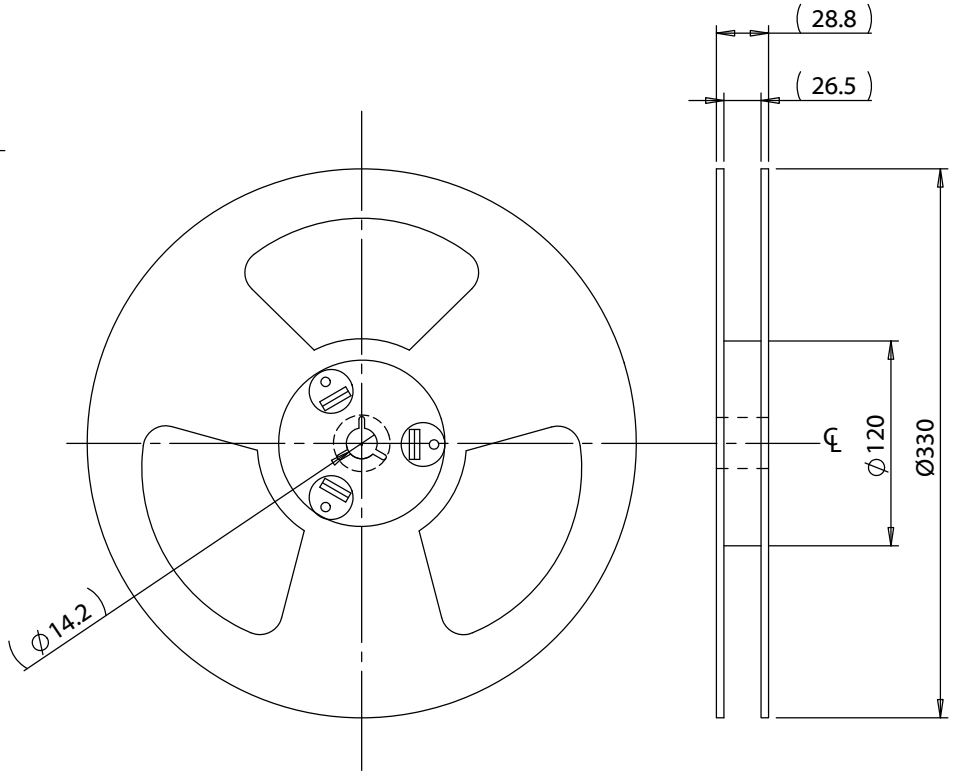
Size: A
Part number: 54-00164
Scale: 1:1

5 4 3 2 1





Not to scale



Not to scale

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

Revision:	Date:	Description:
A	07/03/2019	Initial release

Prepared: GL Digitally signed by GL Date: 2019.07.03 09:45:54 -07'00'

Verified: AW Digitally signed by AW Date: 2019.07.03 10:09:09 -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:
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Size: A
Part number: 54-00164
Scale: 5:1
Sheet 3 of 3

5 4 3 2 1