

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	11/2/2023	Initial release	Verified:	RoHS compliant		
			Dimensions are in millimeters.	Function test: no open, no short circuit, no intermittent	Size:	Part number:
			Tolerances:	Description:	A	54-00347
			X: ± 0.3 mm	Connector, dc jack, 5.5x2.1 mm, PCB mount, 90°, silver plating, twist lock	Scale:	3:1
			X.X: ± 0.1 mm			
			X.XX: ± 0.05 mm			

#### Ratings

Maximum operating voltage: 48 V  
Maximum operating current: 8.0 A not mated under load

#### Operating Temperature Range

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

#### Materials

- ① Insulator: PBT, black, UL 94 V-0
- ② Cover: PBT, black, UL 94 V-0
- ③ Center Pin: brass, 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: 0.3-2.0 kgf  
Withdrawal force: 0.3-2.0 kgf  
Life cycle: 5000 mating cycles while maintaining contact  
resistance: 100 mΩ maximum, withstand voltage: 500 Vac, 1 min

#### Soldering

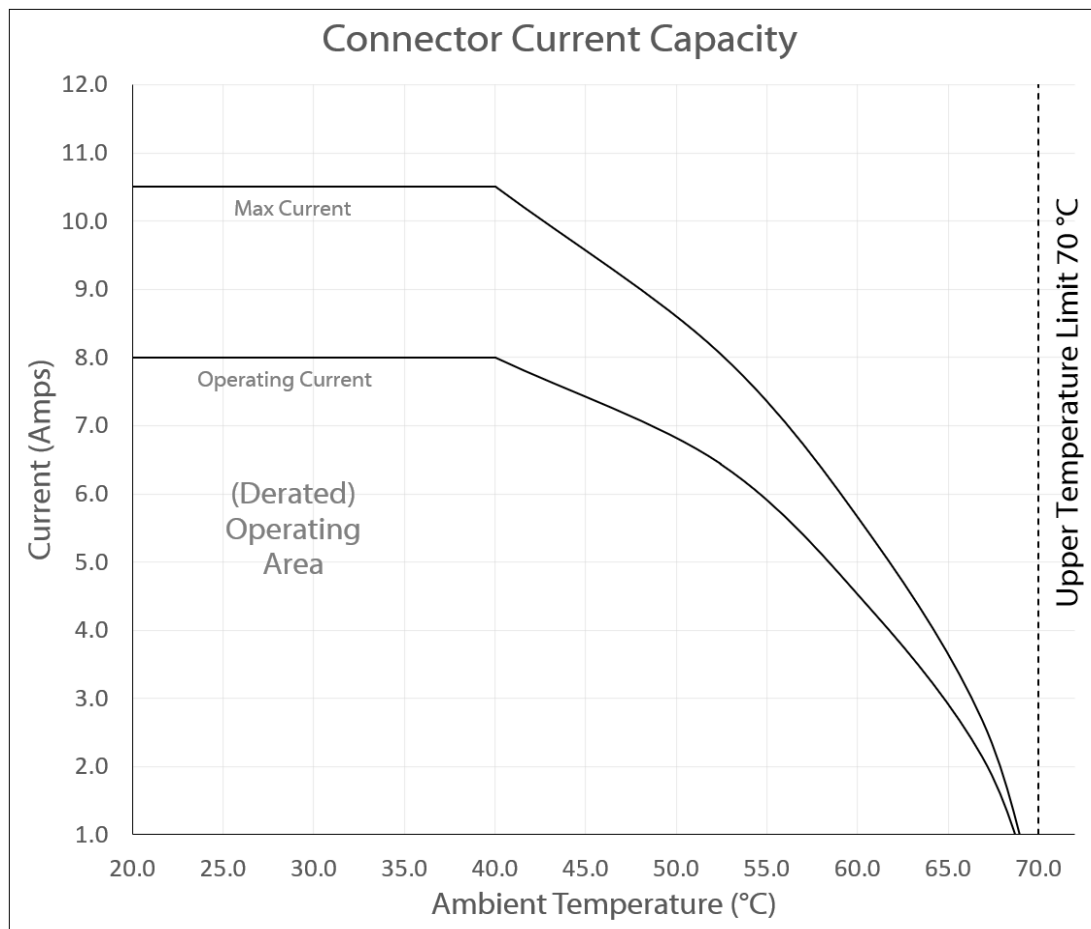
Solderability: 90% minimum coverage when terminals dipped 2mm  
in 260 ±5 °C solder bath for 3 ±0.5 seconds  
Soldering heat test: no deformation when dipped 2 mm in  
260 ±5 °C solder bath for 10 ±0.5 seconds  
Solder iron durability: no deformation when exposed to 350 ±10 °C  
for 5 seconds or less

#### Environmental Requirements

Cold test: -40 ±2 °C for 48 hours without deformation 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

#### Packaging Info:

Connectors packaged bulk 500 pieces in sealed PE bag



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.

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				Description: Connector, dc jack, 5.5x2.1 mm, PCB mount, 90°, silver plating, twist lock	Size: A	Scale: 3:1	
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