

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	11/02/2023	Initial release	Verified:	RoHS compliant		
			Dimensions are in millimeters.	Function test: no open, no short circuit, no intermittent	Size:	Part number:
			Tolerances:	Description:	A	54-00356
			X: ± 0.3 mm	Connector, dc jack, 5.5x2.5 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-V0
- 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

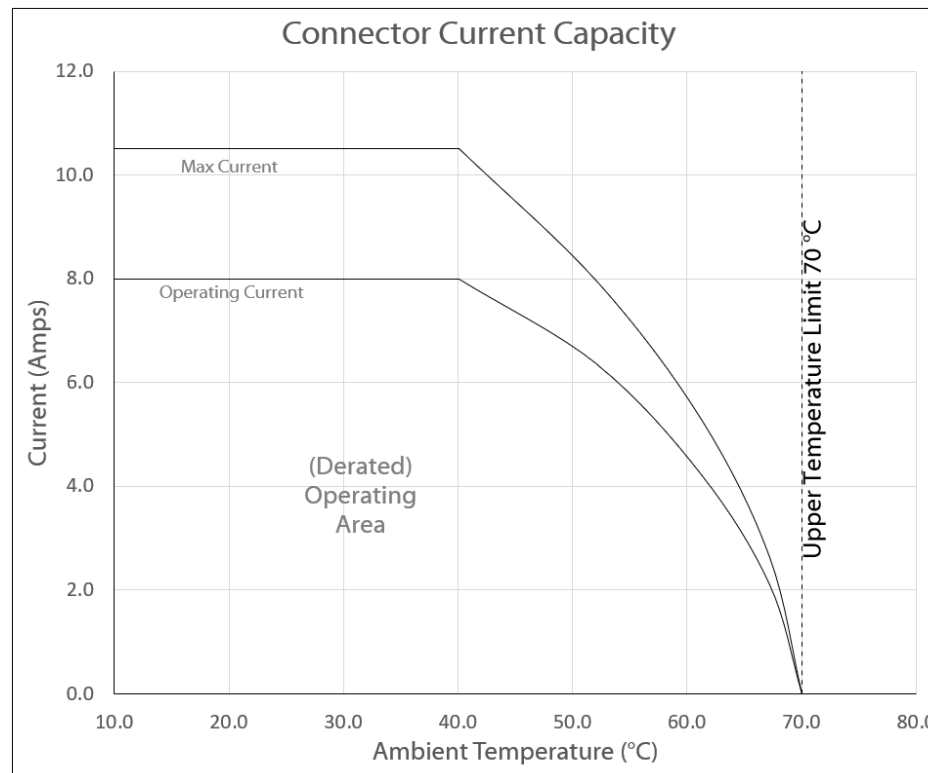
Solderability: 90% minimum coverage when terminals dipped 2mm
in 260 ±5 °C solder bath for 3 ±0.5 seconds
Soldering heat test: no deformation when dipped 2 mm in
260 ±5 °C solder bath for 10 ±0.5 seconds
Solder iron durability: no deformation when exposed to 350 ±10 °C
for 5 seconds or less

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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