

Materials

- 1. Insulator: Nylon, UL 94 V-0, black
- 2. Pin: C3604 brass, 1 µm nickel plated minimum
- 3. Shell: C3604 brass, 1 µm nickel plated minimum
- 4. Terminal: C5191 phosphor bronze, 1 µm nickel plated minimum

Electrical Requirements

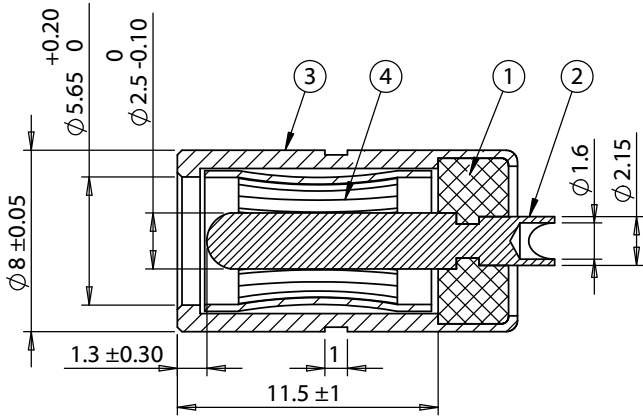
Dielectric strength: 1 min @ 500 Vac
Insulation resistance: 100 MΩ @ 500 Vdc
Contact resistance: 30 mΩ or less

Mechanical Requirements

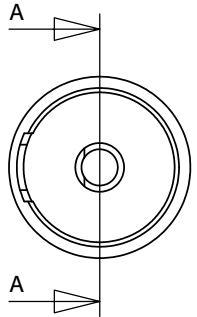
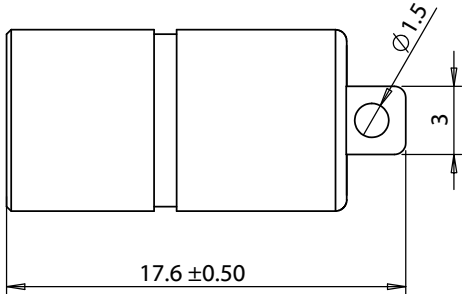
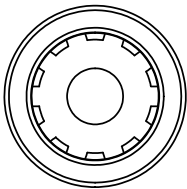
Insertion force: 0.3-3 kgf
Withdrawal force: 0.3-3 kgf
Life cycle: 5000 mating cycles while maintaining 0.3-2.0 kgf min.
insertion force, 0.2-1.5 kgf min. withdrawal force and less than
100 mΩ contact resistance.

Environmental Requirements

Heat test: 70 °C, relative humidity 70-85% for 96 hours while
maintaining contact resistance: 100 mΩ maximum, insulation
resistance: 50 MΩ @ 500 Vac, without looseness or deformation
Humidity test: 40 °C, relative humidity 90-100% for 96 hours
while maintaining dielectric strength: 1 min. @ 500 Vac, insulation
resistance: 50 MΩ @ 500 Vdc, contact resistance: 100 mΩ
maximum
Salt spray test: 35 ± 2 °C, relative humidity 90-95%, 5% NaCl
mist for 24 hrs. Wash parts after test. Maintain mechanical
requirements and a contact resistance of less than 80 mΩ.



SECTION A-A



Revision:	Date:	Description:
A	09/28/2016	Initial release
A1	01/18/2019	Updated temperature rise data

Prepared:
Verified:
Dimensions are in millimeters. Tolerances: X: ± 0.3 mm X.X: ± 0.1 mm X.XX: ± 0.05 mm

Notes: RoHS compliant Function test: no open, no short circuit, no intermittent
Description: Connector, dc jack, 5.5x2.5x17.6 mm, molding style, spring contacts, nickel plated, 105° C

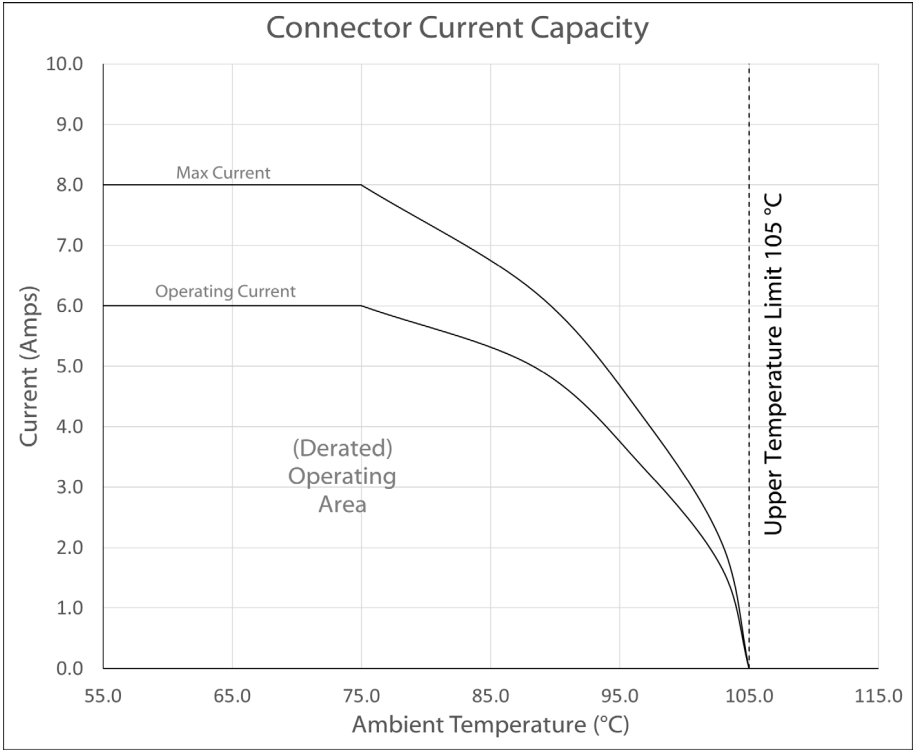
TENSILITY

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fax 1.541.323.4202 web tensility.com

Size: A	Part number: 50-00543
Scale: 3:1	Sheet 1 of 2

Ratings
Maximum Operating Voltage: 48 Vdc
Maximum Operating Current: 6.0 A

Operating Temperature Range
-25° to 105 °C, relative humidity of 85% or less



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.

Revision:	Date:	Description:
A	09/28/2016	Initial release
A1	01/18/2019	Updated temperature rise data

Prepared:	Notes:
	RoHS compliant
Verified:	Function test: no open, no short circuit, no intermittent
Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm	Description: Connector, dc jack, 5.5x2.5x17.6 mm, molding style, spring contacts, nickel plated, 105° C

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