# Materials

- 1. Insulator: Nylon UL94V-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 M $\Omega$  @ 500 Vdc Contact resistance: 30 m $\Omega$  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  $100 \text{ m}\Omega$  contact resistance.

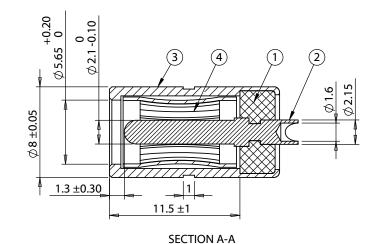
# **Environmental Requirements**

Heat test: 70 °C, relative humidity 70-85% for 96 hours while maintaining contact resistance:  $100 \text{ m}\Omega$  maximum, insulation resistance:  $50 \text{ M}\Omega$  @500 Vac, without looseness or deformation Humidity test: 40 °C, relative humidity 90-100% for 96 hours

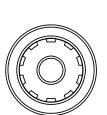
Humidity test: 40 °C, relative humidity 90-100% for 96 hours while maintaining dielectric strength: 1 min. @ 500 Vac, insulation resistance: 50 M $\Omega$  @ 500 Vdc, contact resistance: 100 m $\Omega$  maximum

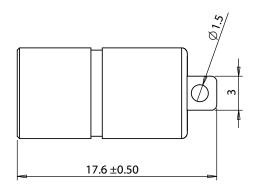
Salt spray test:  $35 \pm 2$  °C, relative humidity 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 m $\Omega$ .

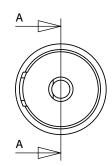
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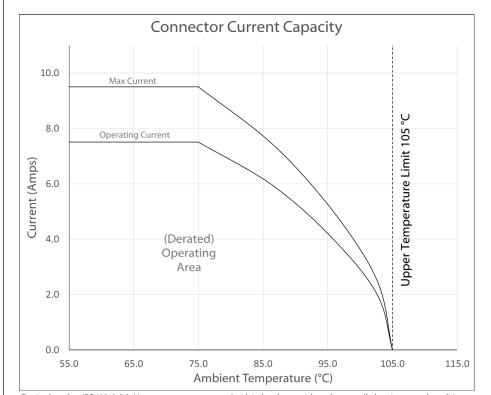
Revision:	Date:	Description:	Prepared:	Notes:					
A	09/28/2016	Initial release		RoHS compliant		F	<b>JSII</b>	ITY	
A1	01/18/2019	Updated temperature rise data	Verified:	Function test: no open, no short circuit, no intermittent		tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com			
			Dimensions are in millimeters. Tolerances: X: ± 0.3 mm			102 1.3 11.323. 1202 Web terisinty.com			
				Description:	Size:	Part number:			
				Connector, dc jack, 5.5x2.1x17.6 mm, molding style,	Α	50-00541			
			X.X: ± 0.1 mm X.XX: ± 0.05 mm	spring contacts, nickel plated, 105° C	Scale:	3:1		Sheet 1 of 2	

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# Ratings

Maximum Operating Voltage: 48 Vdc Maximum Operating Current: 7.5 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:	Prepared:	Notes:					
Α	09/28/2016	Initial release		RoHS compliant		F	NSIL	ITY	
A1	01/18/2019	Updated temperature rise data	Verified:	Function test: no open, no short circuit, no intermittent	te	tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com			
			Dimensions are in			Tax 1.3-1.3231202 Web terisinty.com			
			- millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm	Description:	Size:	Part number:			
				Connector, dc jack, 5.5x2.1x17.6 mm, molding style,	Α	50-00541			
				spring contacts, nickel plated, 105° C	Scale:	3:1		Sheet 2 of 2	

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