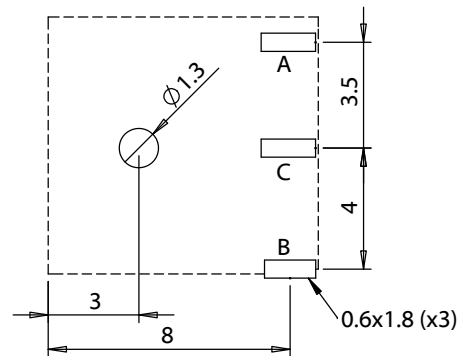
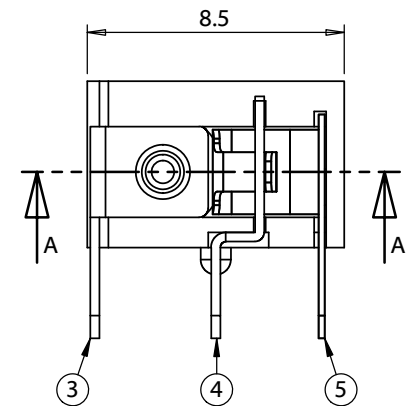
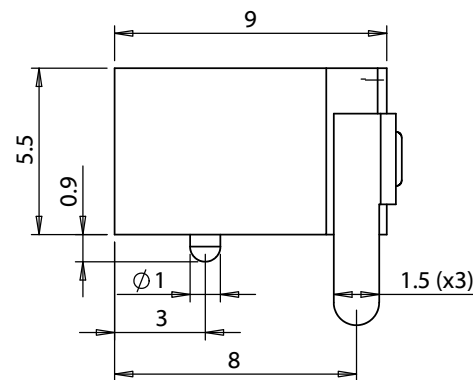
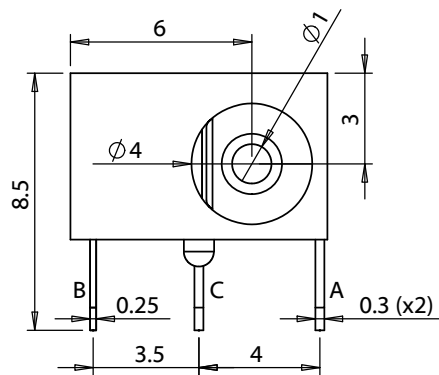
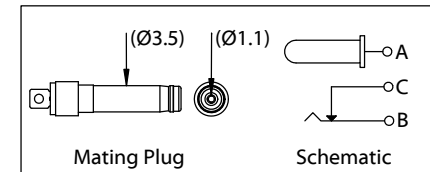
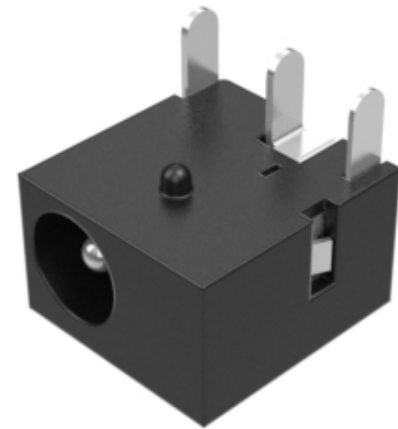


SECTION A-A



P.C.B. Layout



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	9/26/2018	Initial release	Verified:				
			Dimensions are in millimeters. Tolerances: < 1.0: ± 0.1 mm 1.0 to 10.0: ± 0.2 mm > 10.0: ± 0.3 mm	Description:	Size:	Part number:	
				Connector, dc jack 3.5x1.1 mm, PCB mount, 90°, silver plated, thru hole	A	54-00125	
					Scale: 4:1		Sheet 1 of 2

#### Ratings

Maximum operating voltage: 48 V  
Maximum operating current: 3.5 A (not mated under load)  
Flammability: UL 94 V-0

#### Operating Temperature Range

-25 to 85 °C, relative humidity of 85% or less

#### Materials

- ① Insulator: PBT, black
- ② Center pin: brass, nickel plated
- ③ Terminal: brass, silver plated
- ④ Terminal: brass, silver plated
- ⑤ Spring contact: stainless steel, silver plated

#### Electrical Requirements

Dielectric strength: 1 min @ 500 Vac  
Insulation resistance: 100 M $\Omega$  @ 500 Vdc minimum  
Contact resistance: 50 m $\Omega$  maximum

#### Mechanical Requirements

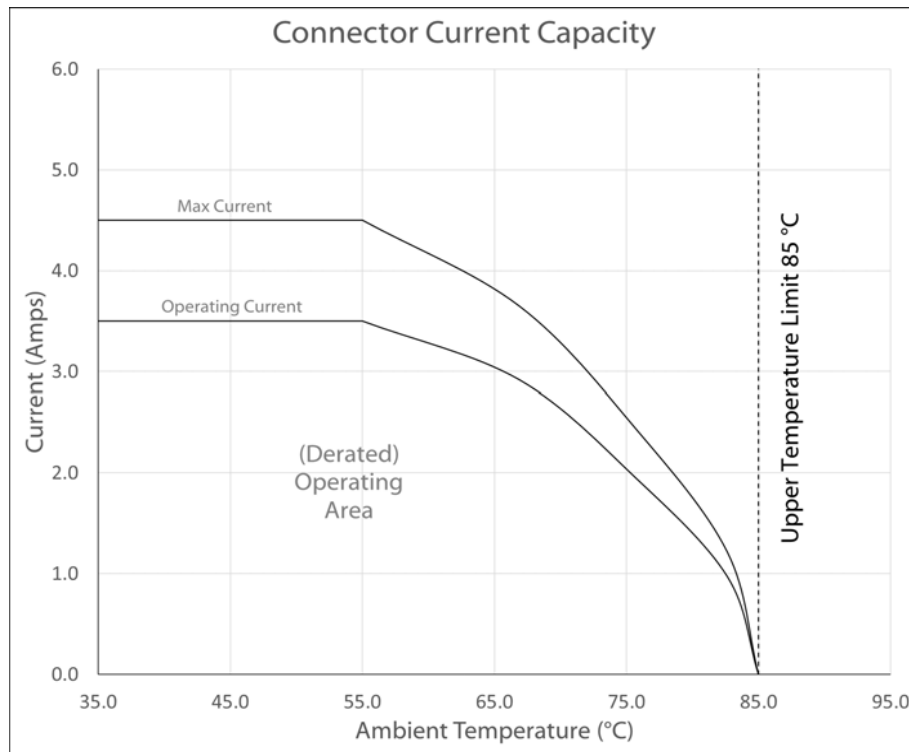
Insertion force: 0.3-1.2 kgf  
Withdrawal force: 0.3-1.2 kgf  
Life cycle: 5000 mating cycles while maintaining contact resistance: 100 m $\Omega$  maximum, insulation resistance: 50 M $\Omega$  minimum, withstand voltage: 500 Vac, 1 min  
Terminal strength: 150 g applied to the terminal for 15 seconds in any direction while maintaining electrical characteristics and without damage or excessive looseness of terminals

#### Soldering

Solderability: 75% minimum coverage when terminals dipped 2mm in 245  $\pm$  5 °C solder bath for 3  $\pm$  0.5 seconds  
Solder bath durability: no deformation when immersed in 255  $\pm$  5 °C up to surface of the board 1.6 mm for 5 seconds or less  
Solder iron durability: no deformation when exposed to 350  $\pm$  10 °C for 3  $\pm$  0.5 seconds

#### Environmental Requirements

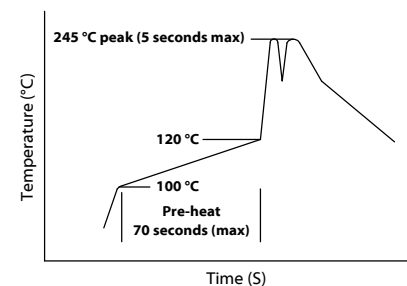
Cold test: -25  $\pm$  3 °C for 48 hours without deformation  
Heat test: 85  $\pm$  2 °C, for 48 hours without deformation  
Humidity test: 40  $\pm$  2 °C, relative humidity 90-95% for 48 hours without deformation



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.

#### Wave Soldering Temperature Profile

Pb - Free Flow Profile  
Solder temperature: 245 °C  
Time: 5 seconds maximum  
Pre-heat: 100 ~120°C  
Time: 70 seconds maximum  
Measure point: surface of the solder leads



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	9/26/2018	Initial release	Verified:	Function test: no open, no short circuit, no intermittent			
			Dimensions are in millimeters. Tolerances: < 1.0: $\pm$ 0.1 mm 1.0 to 10.0: $\pm$ 0.2 mm > 10.0: $\pm$ 0.3 mm	Description: Connector, dc jack 3.5x1.1 mm, PCB mount, 90°, silver plated, thru hole	Size: A	Part number: 54-00125	Sheet 2 of 2
					Scale: 5:1		