

Revision:	Date:	Description:	Prepared:	Notes:				
Α	9/20/2018	Initial release	AW Digitally signed by Date: 2018.10.24 10:50:39 -07'00'	Function test: no open, no short circuit, no			NSIL	ITY
			Verified: RS Digitally signed b Date: 2018.10.24 10:54:47-0700' Dimensions are in	intermittent		tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com		
			millimeters. Tolerances: < 1.0: ± 0.1 mm	Description: Connector, dc jack 5.5x2.1 mm, PCB mount, vertical, silver plated, board lock		Size: Part number: 54-00146		
			1.0 to 10.0: ± 0.2 m > 10.0: ± 0.3 mm			e: 3:1		Sheet 1 of 2
		5	4	3)	T	•	1

Ratings

Maximum operating voltage: 48 V

Maximum operating current: 4.5 A (not mated under load)

Operating Temperature Range

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

Materials

1)Insulator: PBT, black (2)Back Plate: PBT, black

(3) Center Pin: copper alloy, nickel plated

(4)Terminal: brass, silver plated

(5)Spring contact: stainless steel, silver plated

Electrical Requirements

Dielectric strength: 1 min @ 500 Vac

Insulation resistance: 100 MΩ @ 500 Vdc minimum

Contact resistance: 50 mΩ maximum

Mechanical Requirements

Insertion force: 0.6-1.5 kgf Withdrawal force: 0.5-1.5 kgf

Life cycle: 5000 mating cycles while maintaining contact resistance: 100 m Ω maximum, withstand voltage: 500 Vac, 1 min Terminal strength: 150 gf applied to the terminal for 15 seconds in

any direction while maintaining electrical characteristics and without damage or excessive looseness of terminals

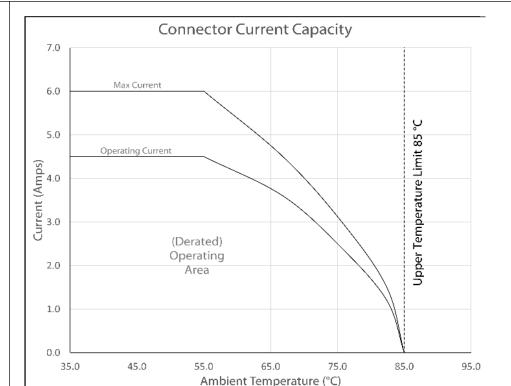
Soldering

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 ±0.5 seconds

Environmental Requirements Cold test: -25 ±3 °C for 48 hours without deformation Heat test: 85 ± 2 °C, relative humidity 45-85% for 48 hours without deformation

Humidity test: 40 ± 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 245 °C peak (5 seconds max) Temperature (°C) Pb - Free Flow Profile Solder temperature: 245 °C 120 °C Time: 5 seconds maximum Pre-heat: 100 ~120°C 100 °C Time: 70 seconds maximum Pre-heat Measure point: surface of the solder leads 70 seconds (max)

Time (S)

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					Scale:	5:1 Sheet 2 of 2		