

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: stainlesss steel, silver plated

Electrical Requirements

Dielectric strength: 1 min @ 500 Vac Insulation resistance: 100 MQ @ 500 Vdc minimum Contact resistance: 50 mQ 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 Ω maximum, insulation resistance: 50 M Ω
- 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 ±5 °C solder bath for 3 ±0.5 seconds
- Solder bath durability: no deformation when immersed in 255 ±5 °C up to surface of the board 1.6 mm for 5 seconds or less
- Solder iron durability: no deformation when exposed to $350 \pm 10 \degree$ C for 3 ± 0.5 seconds

Environmental Requirements

Cold test: -25 ±3 °C for 48 hours without deformation

- Heat test: 85 ±2 °C, 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

Temperature (°C) 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:					、	
А	9/26/2018	Initial release		Function test: no open, no short	t circuit, no					
			Verified:	intermittent		tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com				
			Dimensions are in							
			millimeters.	Description: Connector, dc jack 3.5x1.1 mm, PCB mount, 90°, silver plated, thru hole		Size: Part number:				
			< 1.0: ± 0.1 mm			А	54-00	·00125		
			1.0 to 10.0: ± 0.2 mm > 10.0: ± 0.3 mm			Scale:	5:1	$\bigcirc \square$	Sheet 2 of 2	
		5	1	3	2				1	

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