

Ratings Maximum operating voltage: 48 V Maximum operating current: 6.5 A (not mated under load) Flammability: UL 94 V-0 10.0 Operating Temperature Range 9.0 -25 to 85 °C, relative humidity of 85% or less Max Current Materials 8.0 (1)Insulator: PBT, black (2)Terminal: brass, silver plated 3) Spring contact: phosphor bronze, silver plated 7.0 (4)Terminal: brass, silver plated 5 Center pin: copper alloy, nickel plated Current (Amps) 6.0 6 Cover: brass, silver plated **Electrical Requirements** 5.0 Dielectric strength: 1 min @ 500 Vac Insulation resistance: 100 MΩ @ 500 Vdc minimum Contact resistance: 50 mQ maximum 4.0 Mechanical Requirements Insertion force: 0.3-3.0 kgf 3.0 Withdrawal force: 0.3-3.0 kgf Life cycle: 5000 mating cycles while maintaining contact resistance: 100 m Ω maximum, insulation resistance: 50 M Ω 2.0 minimum, withstand voltage: 250 Vac, 1 min, and insertion/ extraction forces of 0.2-2.0 kgf Terminal strength: 300 gf applied to the terminal for 15 seconds in 1.0 any direction while maintaining electrical characteristics and without damage or excessive looseness of terminals 0.0 35.0 45.0 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 ±10 °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 Pb - Free Flow Profile without deformation Solder temperature: 245 °C Time: 5 seconds maximum Pre-heat: 100 ~120°C Time: 70 seconds maximum



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) Measure point: surface of the solder leads



Revision:	Date:	Description:	Prepared:	Notes:				
A	9/24/2018	Initial release		Function test: no open, no short circuit, no	TENSILITY			
			Verified:	intermittent				
			Dimensions are in millimeters. Tolerances: < 1.0: ± 0.1 mm			tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com		
				Description:	Size:	Part number:		
				Connector, dc jack 5.5x2.5 mm, PCB mount, 90°, silver plated, thru hole	A	54-00128		
			1.0 to 10.0: ± 0.2 mm > 10.0: ± 0.3 mm		Scale	5:1	Sheet 2 of 2	
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