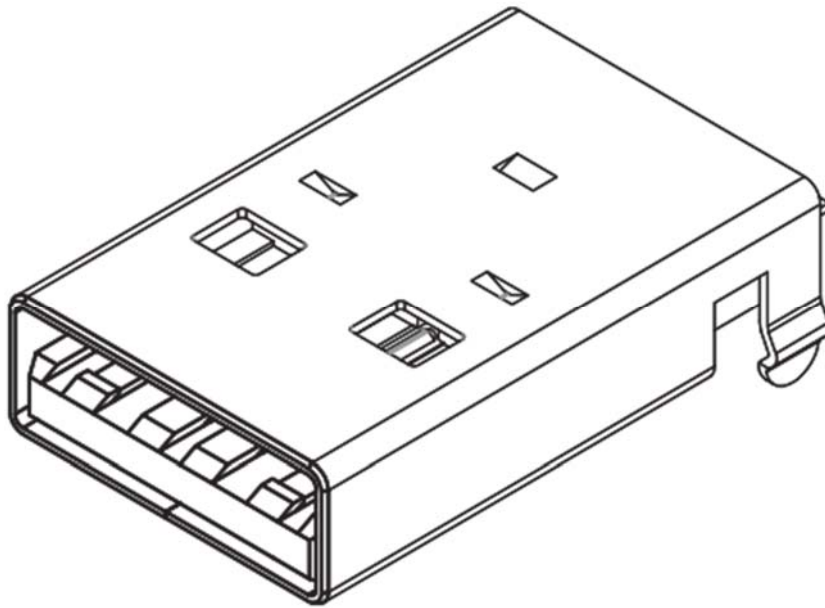


PRODUCT SPECIFICATION

Part Number	USB1061	Rev	A1	Date	12/03/21		
Product Description	USB Plug, Type A, 4 Pin, Mid-Mount, Offset 1.43mm, SMT, Horizontal, Top Mount, Plastic Peg & Kinked Shell Stakes				Page	1	
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1.0 SCOPE.

This specification covers performance, tests and quality requirements for the USB Plug USB1061 (Type A, 4 Pin, Mid-Mount, Offset 1.43mm, SMT, Horizontal, Top Mount, Plastic Peg & Kinked Shell Stake).

2.0 PRODUCT NAME AND PART NUMBER.

USB Plug, Type A, 4 Pin, Mid-Mount, Horizontal, USB1061.

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

- 4.1 Current rating 3.0 A
- 4.2 Voltage rating 30 V
- 4.3 Operating Temperature Range -55°C TO +85°C

5.0 TEST AND MEASUREMENT CONDITIONS.

Product is designed to meet electrical, mechanical and environmental performance requirements specified in Paragraph 6.0. All tests are performed in ambient conditions unless otherwise specified.

6.0 PERFORMANCE.

Item	Test Condition	Requirement
Examination of Product	Visual, dimensional and functional inspection as per quality plan.	Product shall meet requirements of product drawing and specification.

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6.1 Electrical Performance.

Item	Test Condition	Requirement
Low level Contact Resistance	Subject mated contacts assembled in housing to 20mV Max open circuit at 100mA Max. In accordance with EIA-364-23.	30mΩ Max.
Insulation Resistance	Impressed voltage 500V DC. Test between adjacent circuits of unmated connector. In accordance with EIA-364-21.	1000MΩ Min.
Dielectric withstanding Voltage	500V AC for 1minute Test between adjacent circuits of unmated connector and in accordance with EIA-364-20.	No creeping discharge or flashover shall occur. Current leakage: 0.5mA Max.

6.2 Mechanical Performance.

Item	Test Condition	Requirement
Insertion Force	Operation Speed: 12.5 mm/min. Measure the force required to mate connector and in accordance with EIA-364-13.	3.57KGf (35N) Max.
Extraction Force	Operation Speed: 12.5mm/min. Measure the force required to unmate connector and in accordance with EIA-364-13.	1.02KGf(10N) Min.
Durability	Operation Speed: 200 cycle/Hour Durability Cycles: 5000 Cycles In accordance with EIA-364-09.	Contact Resistance 30mΩ. Mating force: 3.57KGf (35N) Max. Unmating force: 1.02KGf(10N) Min. Contact resistance: 10mΩ change Max.
Random Vibration	Mate connectors and subject to 5.35 Gs RMS. For a period of 15 minutes in each of 3 mutually perpendicular axes. In accordance with EIA-364-28D.	No electrical discontinuity greater than 1 μsec. shall occur. No damage to product. Contact resistance: 10 mΩ change Max.
Mechanical Shock	Accelerate Velocity: 30Gs Waveform: Half-sine shock plus Duration: 11msec Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks. In accordance with EIA-364-27	No electrical discontinuity greater than 1 μsec. shall occur. No damage to product. Contact resistance: 10mΩ change Max.

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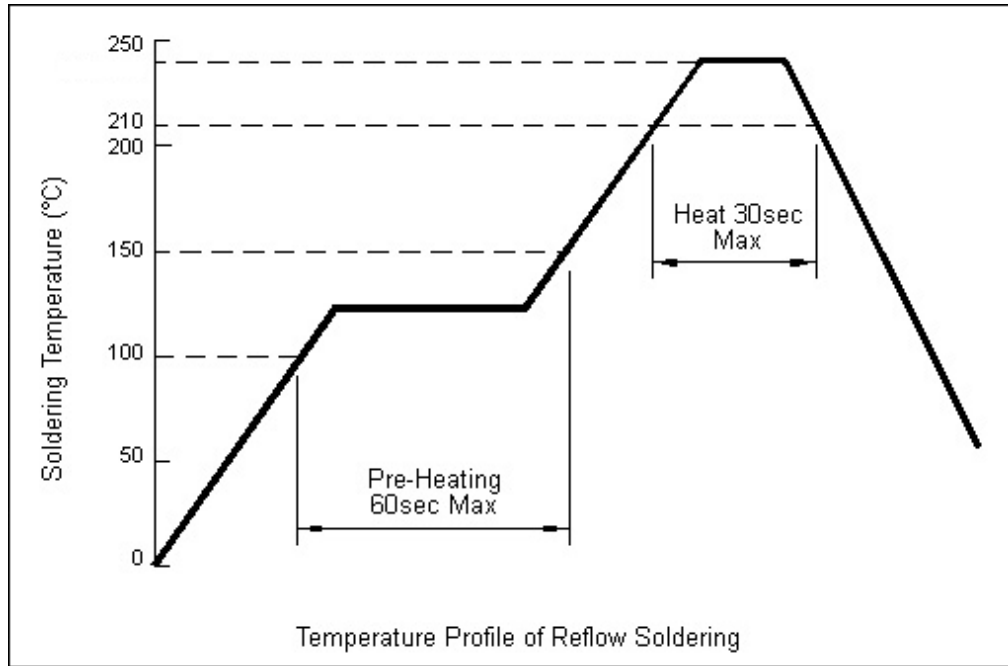
6.3 Environmental Performance and Others.

Item	Test Condition	Requirement
Solderability	Solder pot temperature: 245 ± 5°C, 5sec	The inspected area of each lead must have 95% solder coverage minimum.
Thermal Shock	Mated Connector -55°C and +85°C Perform this a cycle, repeat 10 cycles. In accordance with EIA-364-32.	Contact resistance: 10 mΩ change Dielectric withstanding Voltage : no breakdown Insulation Resistance: 100 MΩ Min.
Humidity	Mated Connector 40°C, 90~95% RH, 168hours. In accordance with EIA-364-31.	Contact resistance: 10 mΩ change Dielectric withstanding Voltage : no breakdown Insulation Resistance: 100 MΩ Min.
Temperature life	Subject mated connectors to temperature life at 85 for 500hours ,In accordance with EIA 364-17 Test Condition 2 Method A	Contact resistance: 10 mΩ change
Salt Spray	Subject mated connectors to 35+/-2°C and 5+/-1% salt condition for 8hours. After test, rinse the sample with water and recondition the room temperature for 1 hour. In accordance with EIA-364-26.	No detrimental corrosion allowed in contact area and base metal exposed.
Resistance to Reflow Soldering Heat	Mount Connector, place in reflow oven and expose to the temperature profiles shown in fig 1	No evidence of physical damage or abnormalities adversely affecting performance.

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Fig 1 – Temperature profile of Reflow Soldering at 250°C Max.



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7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test Item	Test Group							
	A	B	C	D	E	F	G	
Examination of Product	1,7	1, 9	1, 6	1, 5	1, 5	1, 3	1, 3	
Contact Resistance	2,8	3, 7	2,5	2, 4	2, 4			
Dielectric Withstanding Voltage	3,9							
Insulation Resistance	4,10							
Mating Force		2, 6						
Unmating Force		4, 8						
Durability		5						
Random Vibration			4					
Mechanical Shock			3					
Temperature life				3				
Solderability							2	
Resistance to reflow soldering Heat						2		
Thermal Shock	5							
Humidity	6							
Salt Spray					3			

PRODUCT SPECIFICATION

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Revision details :-

Revision	Information	Page	Release Date
A	Specification released.	-	31/10/14
A1	Change current rating form 1.5A to 3A; change durability from 1500 cycles to 5000 cycles.	2&3	12/03/21