



PRODUCT SPECIFICATION

USB A TYPE RECEPTACLE SINGLE,RIGHT ANGLE, THROUGH HOLE

1.0 SCOPE

This Product Specification covers the USB connector series with terminal tin plating and cover selective plating for Non IR reflow process.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

USB A TYPE RECEPTACLE SINGLE,RIGHT ANGLE,THROUGH HOLE W/O FLANGE:
67643-0910 ; 67643-4001

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings (SD-67643-003,005) for information on dimensions, materials, plating and markings.

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

MIL-STD-1344A
EIA-STD- 202
EIA-364

4.0 RATINGS OF CONNECTOR

1. Rate Voltage: 30 V DC
Rate Current: 1.5 A DC
2. Operating temperature: 0°C to +50°C
Storage temperature : -20°C to +60°C

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| <u>REVISION:</u> B | <u>ECR/ECN INFORMATION:</u> EC No: SH2014-0418 DATE: 2014/0409 | <u>TITLE:</u> USB A TYPE RECEPTACLE SINGLE,RIGHT ANGLE, THROUGH HOLE | <u>SHEET No.</u> 1 of 3 |
| <u>DOCUMENT NUMBER:</u> PS-67643-003 | <u>CREATED / REVISED BY:</u> FYANG05 | <u>CHECKED BY:</u> RZHANG | <u>APPROVED BY:</u> AYIN |



PRODUCT SPECIFICATION

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

| | DESCRIPTION | TEST CONDITION | REQUIREMENT |
|--|--|--|---------------------------------------|
| | Contact Resistance | Mate connectors: apply a maximum voltage of 20 mV and a current of 100 mA . | 30 milliohms MAXIMUM |
| | Insulation Resistance | Unmated connector, mounted to a PCB: apply a voltage of 500 VDC between adjacent terminals and between terminals to ground. | 1000 Megohms MINIMUM |
| | Dielectric Withstanding Voltage | 750 VAC rms (1mA cutoff current) for 60 seconds duration between adjacent terminals and terminals. | No Breakdown |
| | Capacitance | Test between adjacent contacts to 1 Megahertz max per EIA-364-30. | 2 picofarad MAXIMUM |
| | Current Temperature Rating | Mate connector and measure the temperature rise at the rated current (1.5Amps). | 30°C rise MAXIMUM from initial |

5.2 MECHANICAL REQUIREMENTS

| | DESCRIPTION | TEST CONDITION | REQUIREMENT |
|--|--|--|---|
| | Connector Mate and Unmate Force | Mate connector at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute. | 3.57Kgf (35 N) MAXIMUM mate force 1.02 Kgf (10 N) MINIMUM unmate force |
| | Terminal Retention | Apply a pull out force in the axial direction of the contact per Mil-STD-1344A method 2007.1 | 0.8 Kgf minimum |
| | Vibration | Mated connector and subject to the following vibration condition, for a period of 15 minutes in each 3 mutually perpendicular axes. Per EIA-364-28, Test condition V, Test letter A. | Contact Resistance 30 milliohms MAXIMUM Discontinuity ≤ 1usec |
| | Mechanical Shock | Subject mated connector to 30 G half sine in 11 msec according to EIA-364-27. | Contact Resistance 30 milliohms MAXIMUM Discontinuity ≤ 1usec |

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| | Durability | Mate this connector with it's mating part of 1500 cycles. Other conditions follow per EIA-364-09. | Contact Resistance 30 milliohms MAXIMUM |
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5.3 ENVIRONMENTAL REQUIREMENTS

| | DESCRIPTION | TEST CONDITION | REQUIREMENT |
|--|---|--|--|
| | Steady State Humidity | Mate connectors; Temperature: 40±2°C Relative humidity: 90-95% Duration time: 168 hours EIA-364-31 | Contact Resistance 30 milliohms MAXIMUM |
| | Solderability | Dip solder tails into the molten solder (held at 245 ± 5°C) up to 1.0mm from the bottom of the housing for 3 ± 0.5 seconds PER EIA-364-52 | Solderable area shall have minimum of 95% solder coverage |
| | Temperature Life (Thermal Aging) | Subject mated connector to ambient temperature 125°C for 250 hours. Per Mil-STD-1344A method 1005.1 condition B | Contact Resistance 30 milliohms MAXIMUM |
| | Thermal Shock | Subject mated connector to 10 cycles of exposure at -55°C and 85°C per EIA-364-32. | Contact Resistance 30 milliohms MAXIMUM |
| | Solder Resistance | Dip connector terminal tails in solder: Solder Duration: 5±0.5 seconds Solder Temperature: 260±5°C Solder Iron Duration: 4-5 seconds Solder Iron Temperature: 350±10°C per MIL-STD-202F | Appearance : No damage |

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.
See appropriate sales drawings.

7.0 OTHER INFORMATION

N/A

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