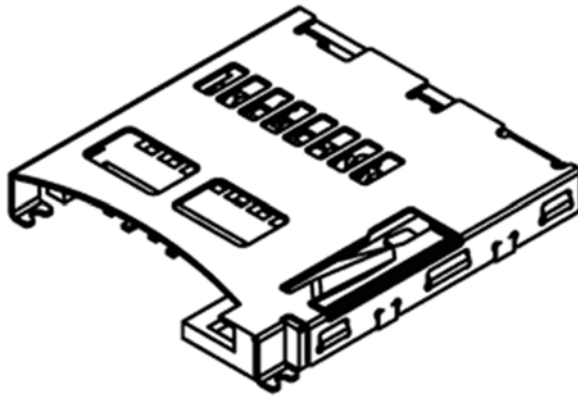


PRODUCT SPECIFICATION

| | | | | | | | |
|----------------------------|------------------------------------------------------------------------------------|-----------------|----|----------------|----------|-----------------|----|
| Part Number | MEM2051 | Rev | B | Date | 18/05/16 | | |
| Product Description | Micro SD Memory Card Connector, Push-Push, SMT, Card Entry Normal, 1.95mm Profile. | | | Page | 1 | | |
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PRODUCT SPECIFICATION

| | | | | | |
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1.0 SCOPE.

This specification covers performance, test and quality requirements for the Micro SD Memory Card Connector Normally open MEM2051 (Push-Push Type, SMT, 1.90mm Profile.).

2.0 PRODUCT NAME AND PART NUMBER.

Memory Card Connector, Push-Push Type: MEM2051.

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

- 4.1 Current rating 0.5A DC Max
- 4.2 Voltage rating 100 Volts AC(RMS)
- 4.3 Operating Temperature Range -40°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 |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Contact Resistance | Measure and record contact resistance of mated connector using test current of 10mA max and 20 mV open circuit voltage in accordance with EIA-364-6B | Less than 100 MΩ at end of test |
| Insulation Resistance | Apply 500Volts DC between adjacent contacts of mated connectors for one minute in accordance with EIA-364-21C | Less than 1000 mΩ |
| Dielectric Strength | Mate connectors and apply 500 V AC for 1 minute between adjacent terminal ground, in accordance with EIA-364-20B. | No creeping discharge or flash over. |

6.2 Mechanical Performance.

| Item | Test Condition | Requirement |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Contact Force | Using a push-pull gauge perform insertion and removal of connector at a speed of 25±3mm/min. | 13.8 N max (0.1 kg f min pin) |
| Durability | The connector should be mated and unmated for 5000 cycles with 400-600 cycles/hour. | No evidence of physical damage. Contact Resistance ≤100mΩ at end of test. |
| Vibration | Subject mated connectors to 10 to 55 to 10-55-10 Hz frequency span over 1 minute at a 1.52mm amplitude. Test to be conducted on 3 mutually perpendicular planes with 1 MA applied and in accordance with MIL STD Method 201. | No electrical discontinuity greater than 1 μ sec. shall occur. No damage to product. Contact Resistance 100mΩ±40 Max. |
| Mechanical Shock | Apply DC and 1mA to all contacts and subject the part to a 490 m/s ² half sine wave acceleration for 11 ms. Three shocks to be applied in each of the X, Y and Z planes and in both directions. A total of 18 shocks and in accordance with EIA-364-27B. | No electrical discontinuity greater than 1 μ sec. shall occur. No damage to product. |
| Terminal Retention Force | Apply axial pull out force at the speed rate of 25±3mm/min. | 0.98 N max (0.1 kg f min pin) |
| Push In Strength | The connector should be mated and unmated with the force of 19.6N (0.2 kg f). | No evidence of physical damage |

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6.3 Environmental Performance and Others.

| Item | Test Condition | Requirement |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Thermal Shock | Mate Connector and perform the following thermal cycle :- -40±3°C for 30 minutes. +85±2°C for 30 minutes. Transit time will be within 3 minutes. Specimen should be left at ambient room temp. for 1-2 hours after test. | No evidence of physical damage, discharge, flashes or corrosion in contact areas. Contact Resistance Less than 100mΩ±40 at end of test. Insulation Resistance greater than 1000Ω at end of test. |
| Salt Water Spray | Subject mated connectors to 35±2°C and 5±1% salt condition for 48hours. Specimen shall be gently washed under running water after test completion. | |
| Temperature Life (Low) | Subject product to -40±3°C for 96 hours continuously. Specimen should be left at ambient room temp. for 1-2 hours after test. | |
| Temperature Life (High) | Subject product to 85±3°C for 96 hours continuously. Specimen should be left at ambient room temp. for 1-2 hours after test. | |
| Solderability | Dip solders tails into molten solder, held at a temperature of 230±5°C up to 0.5mm for 30.5 sec. | 95% of immersed area must show no voids of pin holes. |
| Resistance to Reflow Soldering Heat. | Mount connector, place in reflow oven and expose to the temperature profile shown in fig 1.0 | No evidence of physical damage or abnormalities adversely affecting performance. |

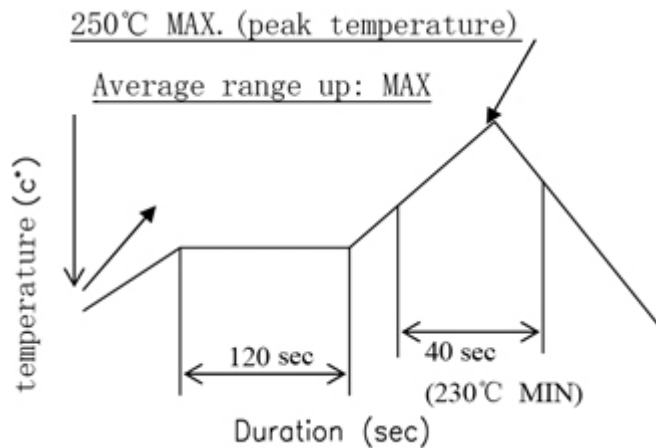


Fig.1. Recommended Reflow Temp. Profile

PRODUCT SPECIFICATION

| | | | | | | | |
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7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

| Test Item | Group | | | | | | |
|-------------------------------------|-------|------|------|-----|-----|-----|-----|
| | A | B | C | D | E | F | G |
| Examination of Product | 1,7 | 1,10 | 1,10 | 1,5 | 1,5 | 1,3 | 1,3 |
| Contact Resistance | 3,6 | 2,7 | 2,7 | 2,4 | 2,4 | | |
| Insulation Resistance | | 3,8 | 3,8 | | | | |
| Dielectric Withstanding Voltage | | 4,9 | 4,9 | | | | |
| Mechanical shock | | 6 | | | | | |
| Card insertion /Withdrawal force. | 2,5 | | | | | | |
| Durability | 4 | | | | | | |
| Vibration | | 5 | | | | | |
| Humidity | | | 6 | | | | |
| Thermal Shock | | | | 3 | | | |
| Salt Water Spray | | | | | 3 | | |
| Temperature Life (Low) | | | | | 6 | | |
| Temperature Life (high) | | | 5 | | | | |
| Solderability | | | | | | 2 | |
| Resistance to Reflow Soldering heat | | | | | | | 2 |
| Sample QTY. | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

PRODUCT SPECIFICATION

| | | | | | | | |
|----------------------------|------------------------------------------------------------------------------------|-----------------|-----------|----------------|-----------|-----------------|-----------|
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8.0 Revision Details:

| Revision | Information | Page | Release Date |
|----------|---------------------------------------------------------|------|--------------|
| A | Specification Released | - | 30/11/2011 |
| B | Lower Operating Temperature changed from -25°C to -40°C | 2 | 18/05/2016 |
| | | | |