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SPECIFICATION AND PERFORMANCE

Series	112I-series	File	112I_Spec_1	Date	2020/07/28

Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of below

P/N	Description
112I-TA01	Micro SD socket, Push-Pull Type, w/card switch, w/Peg, Reel

Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

RoHS:

All material in according with the RoHS environment related substances list controlled.

MATERIALS		
NO.	**PART NAME**	**DESCRIPTION**
1	HOUSING	LCP, black
2	CONTACT	Phosphor bronze C5191, G/F on Contact area, 50u" min. Tin plating on solder area, 50u" min. Nickel under plating over all
3	SHELL	Brass C2680, 50u"min. Nickel plating

RATING	
Rated Voltage	10V
Rated Current	0.5A
Operating Temperature	-40~85°C
Storage Temperature	-40~85°C
Durability	10,000 cycles

ELECTRICAL		
Item	**Requirement**	**Test Condition**
Contact Resistance	Initial: 40 mΩ (Max)	Solder connectors on PCB and mate them together, measure by applying closed circuit current of 10mA maximum at open circuit voltage of 20mV (max). (JIS C5402 5.4)
Insulation Resistance	Initial: 1000 MΩ(Min).	Apply 500V DC between adjacent contacts, or contact and ground. (MIL-STD-202 METHOD 302)

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Dielectric Withstanding Voltage	No breakdown	Mate connectors; apply 500V AC (rms.) between two adjacent for 1minute. (Trip current:1mA) (MIL-STD-202 METHOD 301)

MECHANICAL		
Item	**Requirement**	**Test Condition**
Durability	Finish 1.Contact Resistance: 80mΩ (Max) 2.No Damage	EIA-364-09, 10000 cycles time, mate and unmated connectors for 500 cycles per hour.
Mating Force	40N Max.	Measure forces necessary to mate connector. Rate:12.5mm/Minute
Un-mating Force	0.5N Min. and 40N Max.	Measure forces necessary to mate connector. Rate:12.5mm/Minute

ENVIRONMENTAL		
Item	**Requirement**	**Test Condition**
Humidity	Finish 1. Contact Resistance: 80mΩ (Max) 2. Insulation Resistance: 100MΩ (Min)	Humidity storage at +40ºC with 90~95% RH for 96 hours. Upon completion of the exposure period, the test specimens shall be conditions for 1 of 2 hours, then 10 mating cycles while. (EIA364-31)
Heat Resistance	Finish 1. Contact Resistance: 80mΩ (Max) 2. Insulation Resistance: 100MΩ (Min)	Connectors solder on PCB, expose to 85°C for 96hrs. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 of 2hrs, after which the specified measurements shall be performed. (MIL-STD-202 METHOD 108)
Cold Resistance	Finish 1. Contact Resistance: 80mΩ (Max) 2. Insulation Resistance: 100MΩ (Min)	Connectors solder on PCB, expose to -25°C for 96hrs. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 of 2hrs, after which the specified measurements shall be performed. (EIA364-59)
Salt Spray	Finish 1. Contact Resistance: 80mΩ (Max) 2 .No Damage	5 ± 1% salt solutions, at 35 ± 2ºC duration 48 hours. Connectors detached (MIL-STD-1344)

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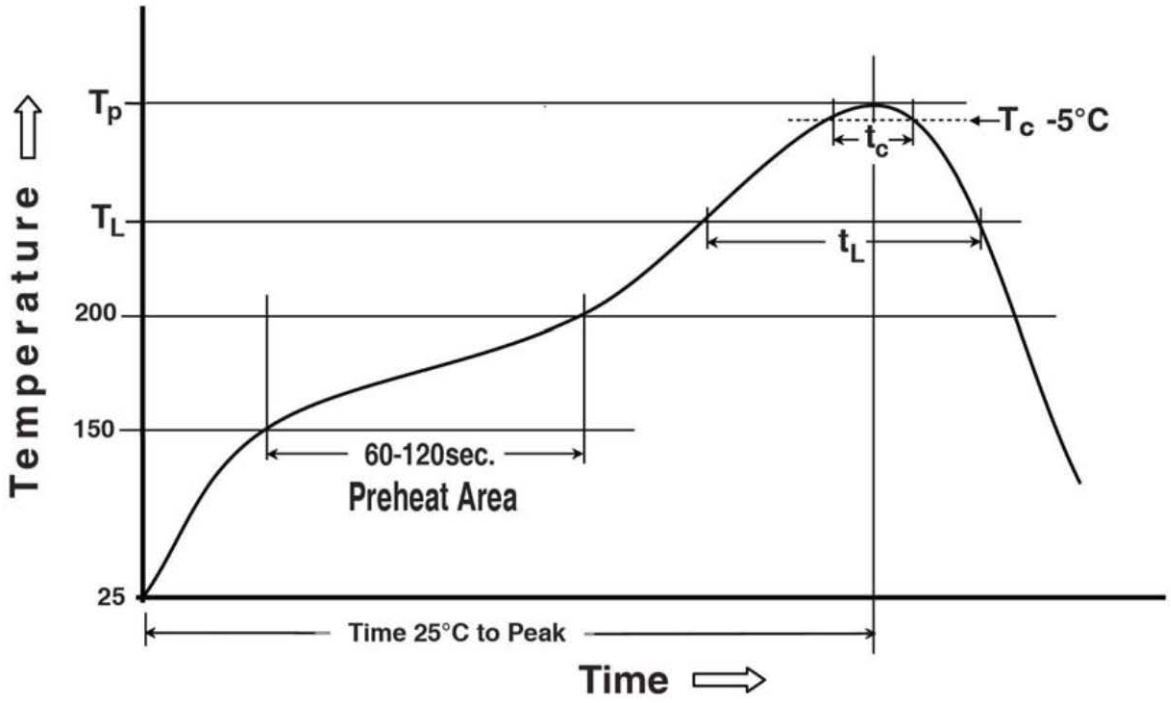
SOLDER ABILITY		
Item	**Requirement**	**Test Condition**
Solder ability	95%of immersed area must show no voids , pin holes.	Dip solder tails into the molten solder(held at 230±5°C) up to 0.5mm from the tip of tails for 3±0.5 seconds. (MIL-STD-202 METHOD 208)
Resistance to soldering heat	No melting, cracks or functional damage allowed	All connectors designed for PCB soldering within this specification must be able to withstand the heat from solder oven according to the graph below. The cycle should be repeated twice. (MIL-STD-202 METHOD 210)

Reflow Profile



Preheating temperature: 150 ~ 200°C, 60~120 seconds
Liquidus temperature (TL): 217°C, 60~150 seconds
Peak temperature: 260°C
Time within 5 °C of peak temperature (Tc): 255°C, 30seconds