1. **Scope**

This specification covers the micro USB Female SMT type connector series.

2. **Applicable documents**

The following documents form a part of this specification to the extent specified herewith. In the event of conflict between the requirements of the specification and the product drawing, the product drawing shall take precedence.
In the event of conflict between the requirements of the specification and the referenced documents, this speci- fication shall take precedence.

3. **Ordering information**

Refer to the drawing.

4. **Connector dimensions**

Refer to the drawing.

5. **Material**

Housing: Thermoplastic (UL 94V-0)
Color: Refer to the drawing.
Terminal: Copper alloy
Plating: Gold plated
Shell: Copper alloy
Plating: Tin plated

6. **Accommodated P.C.B layout**

Refer to the drawing.

7. **Rating**

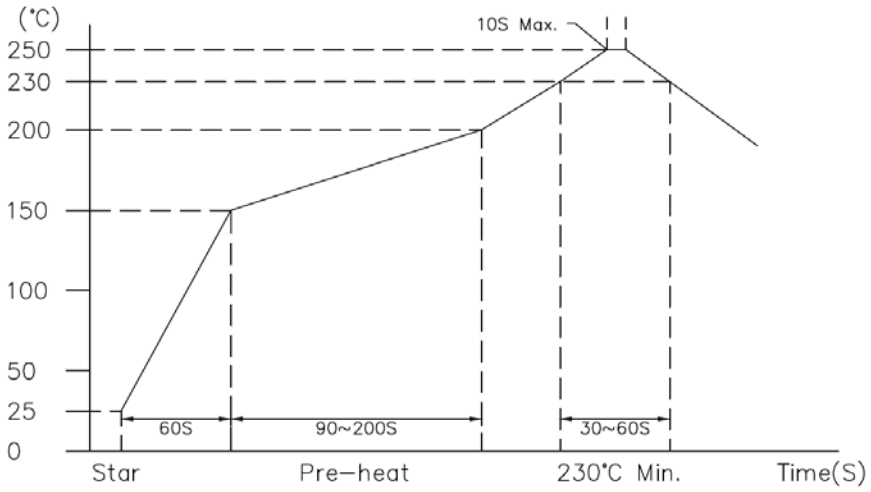
Operating voltage(Max.)	30V DC/AC
Current rating(Max.)	1.0A
Temperature range-operating	-30°C -- +80°C

8. **Performance**

Test item	Standards	Requirement
Electrical Performance		
Contact Resistance	50 mΩ Max.	Mate applicable micro USB plug, measure by dry circuit, 20mV Max., 100mA. (EIA-364-23)
Insulation Resistance	100 MΩ Min.	Mate applicable micro USB plug, apply 100V DC for 1 minute between adjacent terminal or ground. (EIA-364-21)
Dielectric Strength	No breakdown	Mate applicable micro USB plug; apply 100V AC for 1 minute between adjacent terminal or ground. (EIA 364-20)

Test item	Standards		Requirement
Mechanical Performance			
Insertion Force	3.57kgf Max.		Insert the standard gauge at the speed rate of 12.5mm per minute, Mate applicable micro USB plug. (EIA-364-13)
Withdrawal Force	0.82kgf Min.		Withdraw the standard gauge at the speed rate of 12.5mm per minute, Mate applicable micro USB plug. (EIA-364-13)
Durability	Contact Resistance	50 mΩ Max.	MICRO USB Receptacle Mate applicable micro USB plug up to 3000 cycles repeatedly. (EIA-364-09)
Vibration	No discontinuities of 1 μS or longer duration		Mated USB connectors are subjected to 5.35 GRMS. 15 minutes in each of three mutually perpendicular planes. (EIA 364-28)
Mechanical Shock	No discontinuities of 1 μS or longer duration.		Mated USB connectors are subjected to 11 ms duration 30 Gs halfsine shock pulses. Three shocks in each direction applied along three mutually perpendicular planes for 18 shocks. (EIA 364-27)
Environmental Performance and others			
Temperature Rise	30℃ Max.		Mate connectors : measure the temperature rise at the rated current (1.0A).
Thermal Shock	Dielectric strength	No Breakdown at 100V AC	Subject mated connectors to 10 cycles between –55℃ to +85℃ (EIA 364-32)
	Insulation Resistance	100 MΩ	
	Visual	No Damage	
Humidity	Appearance	No damage	Temperature : 40±2℃. Relative Humidity : 90~95%. Duration : 96 hours. (EIA 364-31)
	Contact Resistance	50 mΩ Max.	
	Dielectric strength	No Breakdown at 100V AC /minute	
	Insulation Resistance	100 MΩ	

Test item	Standards		Requirement
Temperature cycling	Appearance	No Damage	Mated connector shall be set to temperature cycling for 5 cycles of which 1 cycle consists of: 1>.+25°C ~ 3 minutes 2>.-25°C ~ 30 minutes 3>.+25°C ~ 3 minutes 4>.+85°C ~ 30 minutes
	Contact Resistance	50mΩ Max.	
Salt Spray	Appearance	No damage	12±2hours exposure to a salt spray from the 5±1%, solution at 35±2℃, After test, rinse the sample with water and recondition the room temperature for 1 hour. (EIA 364-26)
	Contact Resistance	50 mΩ Max.	
Solderability	The surface of the portion to be soldered shall at least 95% covered with new solder coating.		Solder Temperature: 245±3℃, Duration: 5±0.5 seconds. (EIA 364-52)
Resistance To Solder Heat	No mechanical defect on housing or other parts.		Temperature: 250℃ Max., 10±0.5 seconds. (Lead-Free) (EIA 364-56)



Reference infrared reflow condition (Lead-Free)

9. **Test sequences identification**

No.	Test or Examination	Test Group									
		A	B	C	D	E	F	G	H	I	J
		Test Sequence									
1	Examination of Product	1,7	1,9	1,6	1,5	1,5	1,5	1,5	1,3	1,3	1,3
2	Contact Resistance		2,8	2,5	2,4	2,4	2,4	2,4			
3	Dielectric Strength	3,6									
4	Insulation Resistance	2,5									
5	Temperature Rise								2		
6	Insertion Force		3,7								
7	Withdrawal Force		4,6								
8	Durability		5								
9	Vibration			3							
10	Mechanical Shock			4							
11	Solder ability										2
12	Resistance to Soldering Heat									2	
13	Thermal Shock				3						
14	Humidity	4				3					
15	Temperature cycling						3				
16	Salt Spray							3			