1. SCOPE

This specification defines the performance,test,quality,and reliability requirements of the pogo pin.

2. APPLICABLE DOCUMENTS AND SPECIFICATIONS

2.1 Standards and Specifications.

EIA 364 : Electrical Connector/Socket Test Procedures Including Environmental Classifications.

3. Product Description

3.1 Design and Construction.

The connector shall be of the design,construction and physical dimensions as specified on the applicable product customer drawing.

3.2 Material.

3.2.1 Plunger & Barrel & Receptacle: Brass

3.2.2 Spring : SUS304

3.3 Finish

Plunger Contact Surface : 3 micro inch minimum Au over 60～100 micro inch Ni

Barrel Contact Surface& Receptacle : 3micro inch minimum Au over 60～100 micro inch Ni

4. Rating

See attached drawings

5. Visual Examination

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
5.1	Visual Examination	EIA-364-18,Appearance,construction:Check visually with amagnifying glass for any defect such as breakage or crack on the component. Intermateability:Check for any defect when specimens are mated with the applicable connector.	. No physical damage. .Appearance,Construction:NO defect such as breakage or crack on the component. .Intermateability:NO defect in mating.

6. ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
6.1	Contact Resistance	EIA-364-23,Measure the contact resistance with a test current of 100 mA maximum and 20 mV voltage maximum	. 50mΩ Maximum at working height (Quiescence).
6.2	Insulation Resistance	EIA-364-70, apply a test current of 5 A Mate connectors: measure the temperature rise at the rated current after: 96 hours	Temperature rise;+30°C maximum

7.MECHANICAL REQUIREMENT

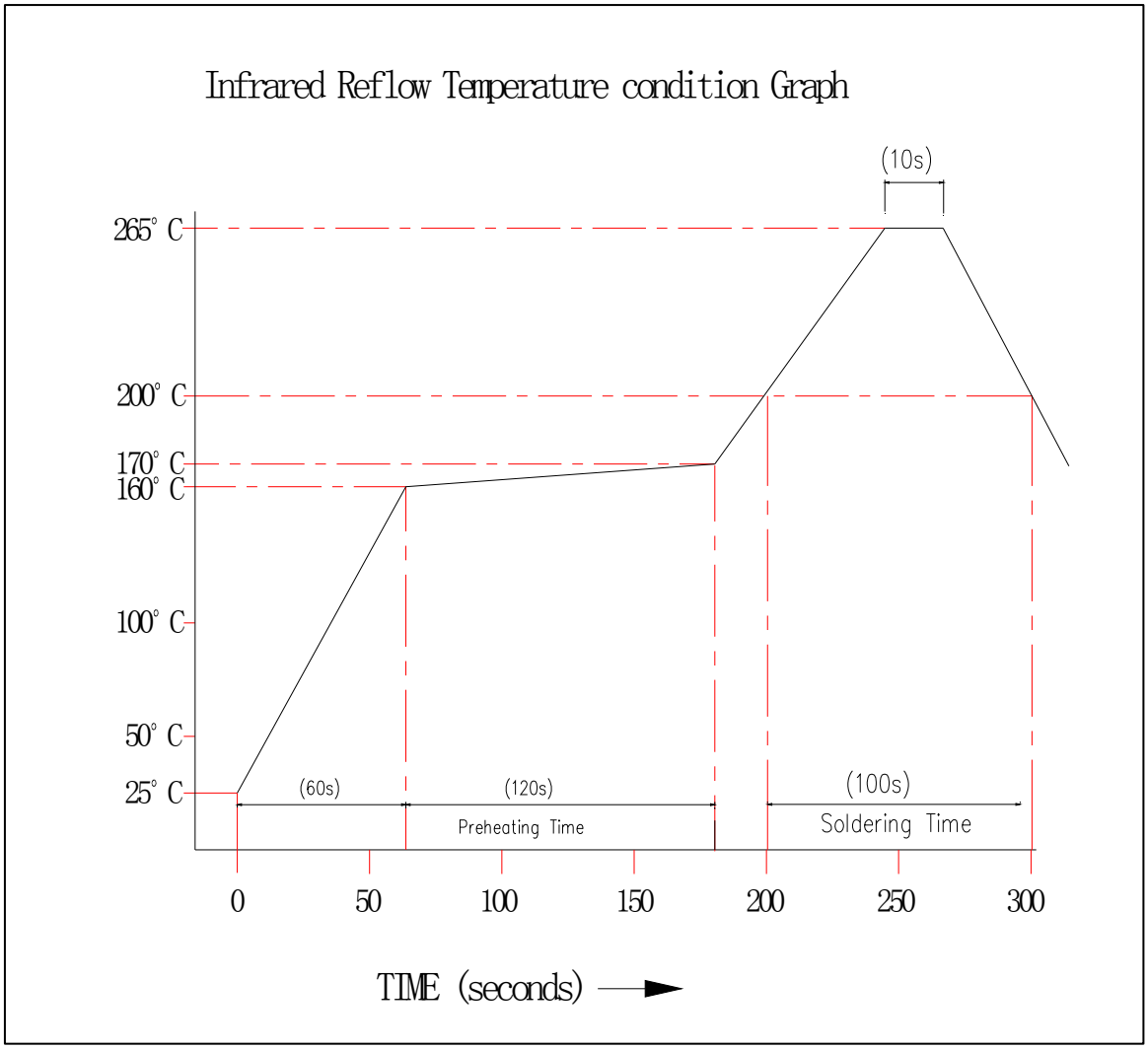
ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
7.1	Spring Force	EIA-364-04，Normal Force Test Procedure	120g±20gf at working height.
7.2	Durability	EIA-364-09， at rated cycling of 500±50 per hour.	.20,000cyclesminimum. .Nophysical damage. .Thecontact resistance after the test is below 50 mΩ.

7.3	Vibration	EIA-364-28, method 2	.Discontinuities time=0.1 ms Max.or longer duration .Shall meet visual requirement,show no physical damage
7.4	Mechanical Shock	ANSI/EIA-364-27 Condition A(specified pulse)	No discontinuity at 1μs or longer (each contact)when continuity is tested per ANSI/EIA-364-46

8. ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
8.1	Humidity	EIA-364-31,Test method Ⅱ,Test condition A, At elativehumidity of 90%~95% and a temperature of 40±2℃ for 96hours.	. No physical damages and meets sequenced tests. .Thecontact resistance after the test is below 50 mΩ.
8.2	Thermal Shock (Cycling)	EIA-364-32,,Test method Ⅷ,5cycles from -40℃ to +85℃.	. No physical damages and meets sequenced tests. . The contact resistance after the test is below 50 mΩ.
8.3	Temperature Life	EIA-364-17,Test method A, Test condition 4,Test time condition A,105±2℃ for 96 hours	. No physical damages and meets sequenced tests. . The contact resistance after the test is below 50 mΩ.

8.4	Cold Resistance	EIA-364-59,Test method complies with, It shall be subjected to temperature of -40±3℃ for 96 hours	. No physical damages. .Contact Resistance 50mohm Max.
8.5	Salt Spray	EIA-364-26,Test condition B, 5% salt solution for 48 hours.	. No physical damages and meets sequenced tests.
8.6	Solderability	EIA-364-52,dip into the 245±5℃, Sn-Ag-Cu solder for 4.0~5.0 seconds.	. Minimum 95% coverage examined under 10x magnification
8.7	Resistance to Solder Heat	EIA-364-56,Procedure 5, 260℃ for 10 seconds.	. No physical damages by visually examination under 10x magnification.


Infrared Reflow Temperature condition Graph
(10s)
265° C
200° C
170° C
160° C
100° C
50° C
25° C
(60s)
(120s)
Preheating Time
(100s)
Soldering Time
0
50
100
150
200
250
300
TIME (seconds)

Test Item		Test Group										
		A	B	C	D	E	F	G	H	I	J	
		Test Sequence										
1	Visual Examination	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	
2	Contact Resistance	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6	
3	Spring Force	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	
4	Current Rating	4										
5	Durability		4									
6	Mechanical Shock			4								
7	Vibration				4							
8	Humidity					4						
9	Thermal Shock (Cycling)						4					
10	Temperature Life							4				
11	Cold Resistance								4			
12	Salt Spray									4		
13	Solderability										4	
14	No. of Test Samples (Min.)	5	5	5	5	5	5	5	5	5	5	5