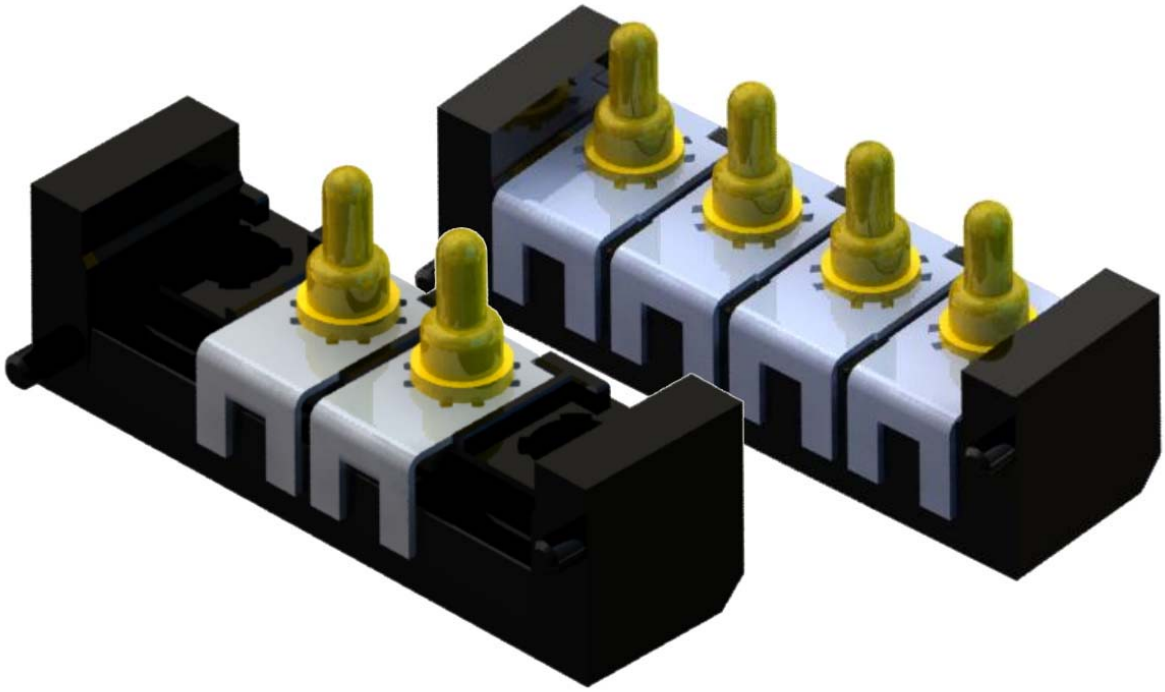
PRODUCT SPECIFICATION



育鼎精密工業股份有限公司

ACRON PRECISION INDUSTRIAL CO., LTD

桃園縣八德市廣德里新興路 55 號

No.55, SinSing Road., Bade City, Taoyuan County 334, Taiwan(R.O.C)

TEL : 886-3-3629889 FAX : 886-3-3664917

□東莞睦永電子有限公司 (AMMI)	■東莞育鼎電子有限公司 (ACRON)	□東莞愷興電子科技電子有限公司 (NUCONN)

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	BTC03 SERIES	SHEET No
A	EC No: / DATE:	NEW SPEC. 2016/08/30	PRODUCT NAME	2 & 4 PIN Pogo pin Connector, PITCH=2.54mm	1 of 5

DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-BC-0114	LINDA	JERRY.TUNG	KIMI.HSU

PRODUCT SPECIFICATION

1.0 SCOPE

This specification defines the performance for the **2 & 4 PIN POGO** connector

2.0 PRODUCT DESCRIPTION

This Pogo-Pin consists of two & four contact pins, two & four springs, two & four solder pads, two fittings and a housing, For materials, plating see below Product Name: **BTC03 Series**

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See product drawing (according to the newest revised edition) and other sections of this specification for the relevant reference documents and specifications. In cases where the specification differs from the product drawings, the product drawings take precedence.

4.0 RATINGS

4.1	Rated Current (per contact)	1 Amp Max.
4.2	Rated Voltage	12V DC RMS
4.3	Operating temperature range	-40°C~ +85°C .
4.4	Dielectric Withstanding Voltage	500V AC

5.0 ELECTRICAL PERFORMANCE

Test Ref.	Item	Test Condition	Requirements
5.1	**Contact Resistance (LLCR)**	Mate connector with circuit of 20mV, 100mA Max. Measured from pin side to shaft side, deflection 0.8 mm. EIA 364-23;	50 milliohms Max(Initial)
5.2	**Insulation Resistance**	Unmate & mate connectors: apply a voltage of 500 VDC between adjacent terminals and between terminals to ground for 1 minute. EIA 364-21	100 Mega Ohm Min.
5.3	**Dielectric Withstanding Voltage**	Apply 500 VAC for 1 minute between adjacent terminals of an unmated connector. EIA 364-20	No breakdown;

6.0 MECHANICAL PERFORMANCE

Test Ref.	Item	Test Condition	Requirements
6.1	Durability	Operation Speed: 10~20cycles/minute. Durability Cycles：10,000 Cycles EIA 364-09C	[Contact Resistance]: 50mΩMaximum,
6.2	Normal Force	Measure normal force at contact point, @0.8mm Deflection EIA-364-04	[Normal force]: 110g MIN.
6.3	Vibration	Subject mated connectors to 10-500 Hz traversed in 1minutes at 1.52mm amplitude for 2 Hour each of 3 mutually perpendicular planes.98.1 m/s^2 EIA 364-28D	<1μs discontinuity
6.4	Mechanical Shock	Accelerate Velocity：490m/ s^2 (50G） Waveform：11ms Half-sine shock Velocity Change: 3.4m/s No. of Drops：3 drops each to normal and reversed directions of X,Y and Z axes, totally 18 drops, passing 1mA current during the test. EIA 364-27B	<1μs discontinuity
6.5	Fully compression	Compress connector to @1.0mm Deflection by hand for 10sec	[Appearance]: no damage

7.0 ENVIRONMENTAL PERFORMANCE

Test Ref.	Item	Test Condition	Requirements
7.1	Humidity	Mate connectors: expose to a temperature of 40±2℃ with a relative humidity of 90~95% for 96hours Note: Remove surface moisture and air dry 48 hours prior to measurements. EIA 364-31B	[Appearance]: no damage [Contact Resistance]: 50 mΩ maximum
7.2	Low Temperature Exposure	48 hours at -40℃ 1hours recovery time EIA 364-59	[Appearance]: no damage [Contact resistance]: 50 mΩ maximum
7.3	High Temperature Exposure	48 hours at +85℃ Less than 25% relative humidity 1hours recovery time EIA 364-17B	[Appearance]: no damage [Contact resistance]: 50 mΩ maximum

7.4	**Thermal Shock**	Place free situation samples in chamber with 10 cycles, and one duration is -40℃/(0.5h)➔ 25℃/(5minutes Max.) ➔85℃/(0.5h) ➔25℃/(5minutes Max.). EIA-364-32C EIA-364-32C	[Appearance]: no damage. [Contact Resistance]: 50 mΩ maximum
7.5	**Salt Spray Test**	Duration: 48 hours exposure; Atmosphere:salt spray from a 5% solution. Temperature: 35 +1/-2°C EIA 364-26B	[Appearance]: no damage.
7.6	**Solderability Test**	Dip solder tails into the molten solder(held at 245±5°C for 3 ±0.5 sec. EIA 364-52	[Solder coverage]: 95% Min.
7.7	**Resistance to reflow soldering heat**	Place connector applicable P.C.B. footprint and float on solder bath at 250 +5/ -0°C Reference to following Table A and Fig.1. EIA 364-56	[Appearance]: no damage .

8.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

9.0 RECOMMENDED REFLOW PROFILE

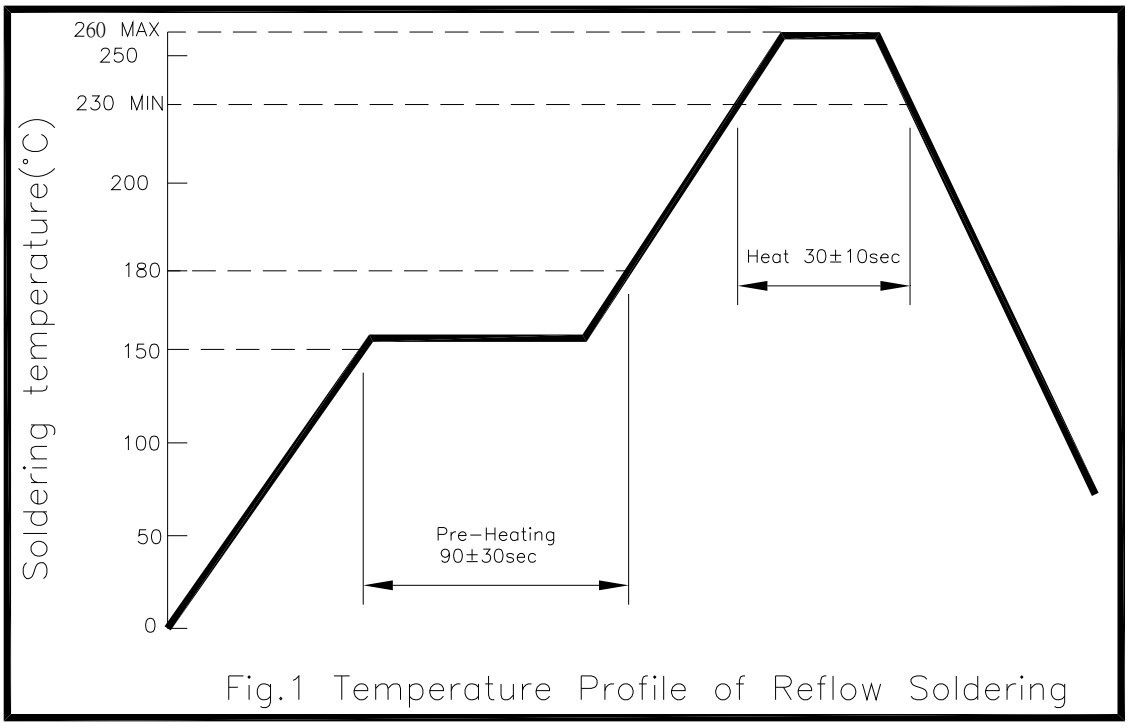


Fig.1 Temperature Profile of Reflow Soldering

10.0 TEST GROUP

Test Group												
Test Items	Test Sequence											
	A	B	C	D	E	F	G	H	I	J	K	L
Contact Resistance(LLCR)	*1,5*	*1,7*	*1,5*	*1,5*	*1,5*	*1,5*	*1,5*	*1,5*	*1,5*	*1,5*	*1,3*	*1,3*
Insulation Resistance	*2,4*	*2,6*	*2,4*	*2,4*	*2,4*	*2,4*	*2,4*	*2,4*	*2,4*	*2,4*		
Dielectric Withstanding Voltage	*3*											
Durability		*4*										
Normal Force		*3,5*										
Vibration			*3*									
Mechanical Shock				*3*								
Fully compression					*3*							
Humidity						*3*						
Low Temperature Exposure							*3*					
High Temperature Exposure								*3*				
Thermal Shock									*3*			
Salt Spray Test										*3*		
Solderability Test											*2*	
Resistance to reflow soldering heat												*2*
Sample(Pcs)	3	3	3	3	3	3	3	3	3	3	3	3

文件制訂、修訂、廢止申請單

RD-PS-A-001-24

文件編號	PS-BC-0114	文件名稱	BTC03 Series 規格書		
申請部門	業務部	申請人	Tiara	日 期	8/31/16
制訂單位	工程部	制訂人	Linda	日 期	8/31/16
☑制訂 ☐修訂 ☐廢止原因說明	補規格書，之前無制訂				
相關單位審查					
核准					