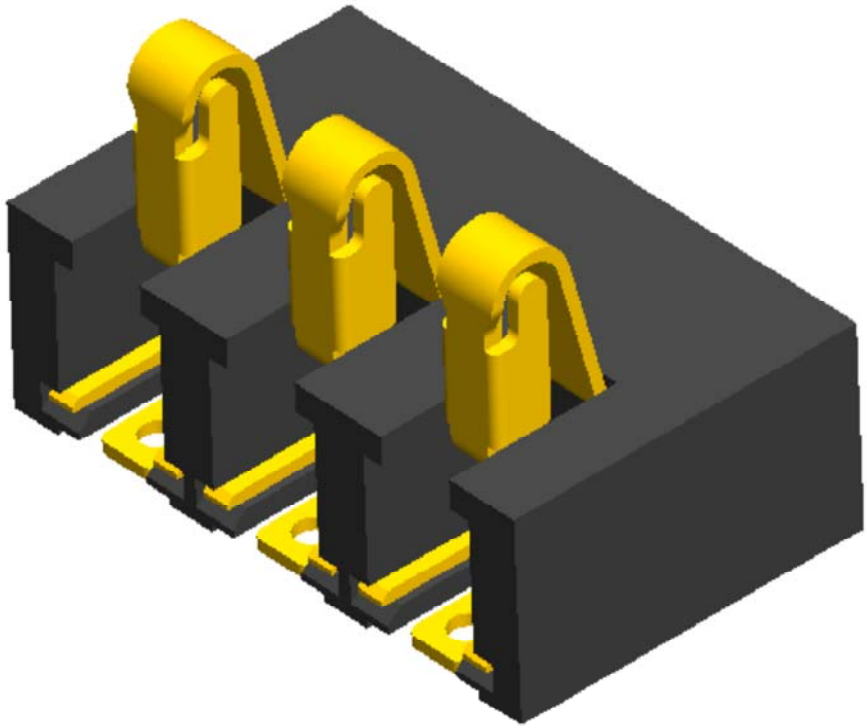
PRODUCT SPECIFICATION



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REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	BTM49 SERIES	SHEET No
T1	EC No: / DATE:	NEW SPEC. 2014/04/17	PRODUCT NAME	3 PIN BATTER CONNECTOR PITCH 2.5mm ,HEIGHT 2.80mm	1 of 5

DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-BT-0002	Linda	Jerry	kimi

PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers the performance requirements for 3pin 2.5mm pitch battery connector series. .

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

3 pin 2.5mm pitch battery connector BTM49 series

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See appropriate sales drawings for details on dimensions ,materials , plating and markings.

2.3 SAFETY AGENCY APPROVALS

See appropriate sales drawings

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Please refer to the Sales Drawings , and other sections of this Specification for specific references to applicable documents and specifications. In cases where the Product Specification differs from the Sales Drawings, the Sales Drawing will take precedence

EIA-364
MIL-STD-1344A
MIL-STD-202F
IEC 68

4.0 RATINGS

4.1 VOLTAGE

25 Volts DC

4.2 CURRENT

1.5 A Max.

4.3 TEMPERATURE

Operating Temperature Range: - 30°C to + 85°C
Storage Temperature Range: - 40°C to + 85°C

5.0 PERFORMANCE

Item	Test Items	Requirement	Procedures
1	**Examination of Product**	Meets requirements of product drawing. No physical damage.	Specimens shall be investigated by 10x (or higher) microscope.
	Electrical Requirements		
2	**Contact Resistance (LLCR)**	20 mΩ Max (Initial) 40 mΩ Max (Final)	It should be tested in accordance with method 3004.1 of MIL-STD-1344A. Measure by low level (Max: 20mV , 100mA)
3	**Insulation Resistance**	1000 MΩ Min.	It should be tested in accordance with method 3003.1 of MIL-STD-1344A. When 100V DC is applied between adjacent contacts and insulation resistance is measured with in one minute.
4	**Dielectric Withstanding Voltage**	There shall be no current leakage and flashover or damage detected.	It should be tested in accordance with method 3001.1 of MIL-STD-1344A. When the 500V AC r.m.s for one minute applied between adjacent contacts.
	Mechanical Requirements		
5	**Durability**	LCCR: 40 mΩ Max	It should be tested in accordance with method 2016 of MIL-STD-1344A. The contacts of connector shall be subject to 10000 cycles of mating and unmating. (Travel=1.2mm)
6	**Vibration**	LCCR: 40 mΩ Max & Contact discontinuity < 0.1usec	Vibration test shall be in accordance with IEC 68-2-6 (sine sweep 10Hz-150Hz,0.35mm.2G,3-axis), Contact discontinuity shall be measured at nominal position(3.90 ±0.04mm) from the PCB level.
7	**Mechanical shock**	LCCR: 40 mΩ Max & Contact discontinuity < 0.1usec	Shock test shall be in accordance with IEC 68-2-27 (Half-sine pulse, 50G,11ms, 3 shocks , 6 directions), Contact discontinuity shall be measured at nominal position(3.90 ±0.04mm) from the PCB level.
8	**Mating Force**	1N Min	The 1.2mm deflection should be from the tip of contact.

9	**Terminal Retention Force (in Housing)**	4.4N (0.45 kgf) Min.	It should be tested in accordance with method 2007.1 of MIL-STD-1344A. The end of terminal shall be pulled in a perpendicular to base housing at a constant speed of 25mm/minute.
Environment Requirements			
10	**Thermal Shock**	LCCR: 40 mΩ Max & Appearance: No physical damage & I.R.> 1000 MΩ	Connector shall be tested in accordance with method 1003.1 of MIL-STD-202F condition A. -40°C(30 minutes) -> +25°C(5 minutes) -> +85°C(30 minutes) Consecutive 5 cycles.
11	**Static Humidity**	LCCR: 40 mΩ Max & Appearance: No physical damage & I.R.> 1000 MΩ	The ummated connector shall be tested in accordance with method 1002.2 of MIL-STD-1344A test procedure type I condition B. Temperature: 40 ±2°C Humidity: 90-95% (RH) Duration: 96hrs.
12	**Solder ability**	Solder coverage: 95% MINIMUM	The end of post shall be applied in accordance with method 208F of MIL-STD-202F. Soldering temperature: 235 ±5°C Soldering time: 5 ±0.5 sec
13	**Solder Heat Resistance**	Appearance: No physical damage	It should be tested in accordance with method 210B of MIL-STL-202F condition J. Soldering temperature: 235 ±5°C Duration: 30 ±5 sec
14	**Salt Spray**	LCCR: 40 mΩ Max & Appearance: No physical damage	Connector shall be tested in accordance with method 100.1 of MIL-STD-1344A condition B Temperature: 35±2°C Density: 5% in weight Duration: 48hrs
15	**Temperature Life(High)**	LCCR: 40 mΩ Max	It should be tested in accordance with method 1005.1 of MIL-STD-1344A. The test temperature: 85±2°C for 96hrs.
16	**Temperature Life(Cold)**	LCCR: 40 mΩ Max	Store in temperature: -40±3°C for 72hrs. Then leave in the ambient temperature for 1hour. The other issues are in conformity to EIA-364-59.

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. See packaging appropriate drawings

7.0 TEST GROUPINGS

Test Items	Test Group								
	A	B	C	D	E	F	G	H	I
	Test Sequence								
Examination of Product	1,7	1,9	1,9	1,5	1,5	1,3	1,3	1,3	1,3
Contact Resistance (LLCR)	3,6	2,6	2,6	2,4	2,4				
Dielectric Withstanding Voltage		4,8	4,8						
Insulation Resistance		3,7	3,7						
Mating Force	2,5								
Durability	4								
Retention Force	8								
Static Humidity		5							
Thermal Shock			5						
Salt Spray				3					
Temperature Life					3				
Solder ability						2			
Solder Heat Resistance							2		
Vibration								2	
Mechanical Shock									2
Sample Size	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**2**	**2**