
File Name. **2.0mm Pitch Battery Female Type**

1. SCOPE

This specification covers performance, tests and quality requirements for **battery** connector.

2. APPLICABLE DOCUMENT

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

3. REQUIREMENTS

3.1. DESIGN AND CONSTRUCTION

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing.

3.2. MATERIALS

A. **Housing : Nylon 9T GN2330, UL 94-V.**

B. **Contact : Copper Alloy, Selected Gold on Contact Area, Gold Flash on Solder Tails, Both over Nickel Under-plated Overall.**

3.3. RATINGS

A. Current Rating : **3A** Max. / Pin

B. Voltage Rating : **30 V** DC Max.

C. Operating temperature: -25 °C to +85 °C

3.4. CONDITION

The product is designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1.

3.5. TEST REQUIREMENTS AND PROCEDURES SUMMARY

TEST DESCRIPTION	REQUIREMENT	PROCEDURED
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Examination of product	Meets requirements of product drawing and Specification.	Visual inspection No physical damage
ELECTRICAL		
Contact Resistance	40m Ω Max. (After Test Δ 20 m Ω Max.)	EIA-364-23C
Insulation Resistance	1000M Ω Min. at 500V DC / 2min.	EIA-364-21D
Dielectric Withstanding Voltage	No breakdown at 500V rms	EIA-364-20D
MECHANICAL		
Durability	5000 Cycles	EIA-364-09C
Mating Force	400g Max. /Pin	EIA-364-13D
Unmating Force	18g Min. /Pin	Speed 25 \pm 3mm/minute
Contact Retention Force	300g Min./Pin	EIA-364-29C
ENVIRONMENTAL		
Humidity	Meets requirements of product drawing and electrical specification.	EIA-364-31B Method II, Condition A
Salt spray	Meets requirements of product drawing and electrical specification.	Temperature: 35 $^{\circ}$ C \pm 2 $^{\circ}$ C Density of salt water: 5 \pm 1% Duration: 4hours \pm 15min.
Cold	Meets requirements of product drawing and electrical specification	The connector housing shall be store at temperature of -25 \pm 3 $^{\circ}$ C for 48hours
Dry heat	Meets requirements of product drawing and electrical specification	The connector housing shall be store at temperature of 85 \pm 2 $^{\circ}$ C for 96hours
PHYSICAL		
Solderability	The test area shall be covered more than 95% of immersed area with flash solder	Solder Temperature: 245 $^{\circ}$ C \pm 5 $^{\circ}$ C Immersion Period: 3 \pm 0.5sec.
Resistance to Soldering Heat	1. Without deformation of case or excessive loosen. 2. Electrical characteristics shall be satisfied	Place the connector on the P.C. Board, then immerse the solder pin up to the surface of the board in the solder bath at 260 $^{\circ}$ C \pm 5 $^{\circ}$ C for 5sec.

Figure 1

NOTE: Shall meet visual requirements, show no physical damages.

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3.6. PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE

Test or Examination	Test Group							
	A	B	C	D	E	F	G	H
	Test Sequence (a)							
Examination of Product	1,9	1,9	1,9	1,9	1,9	1,7	1,3	1,3
Contact Resistance	2,8	2,8	2,8	2,8	2,8	2,6		
Insulation Resistance	3,7	3,7	3,7	3,7	3,7			
Dielectric Withstanding Voltage	4,6	4,6	4,6	4,6	4,6			
Durability						4		
Mating Force & Unmating Force						3,5		
Contact Retention Force							2	
Humidity	5							
Salt spray		5						
Cold			5					
Dry heat				5				
Solderability								2
Resistance to Soldering Heat					5			

Figure 2

NOTE :

(a) Numbers indicate sequence in which tests are performed.

***PLEASE PROVIDE MORE DETAIL FIGURES IF NECESSARY.**

REV.	REV. RECORD	DATE	EC NO.	WRITTEN BY	APPROVED BY