



<b>ENGINEERING DEPT</b>	<b>PRODUCT SPECIFICATION</b>	<b>SPEC No:GS-BF-EN-45</b>
	<b>BA090-H0401A</b>	<b>Page 1 of 4</b>

### 1.0 SCOPE

This Product Specification covers the board to board Battery Series connector.

### 2.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See sales drawings and other sections of this specification for the relevant reference documents. In cases where the specification differs from the drawings, the drawings take precedence.

### 3.0 DESIGN AND CONSTRUCTION

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

### 4.0 MATERIALS

See attached drawings

### 5.0 RATINGS

Rated current: Signal contact: 0.3A

Power contact:4A

Rated voltage: 30 V AC/DC

Operating Temperature:-35 °C to +85°C

Storage Temperature: -10 °C to +60°C

APPROVED BY: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_ VERIFIED: \_\_\_\_\_



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## 6. ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
6.1	Contact Resistance	Mate connectors with dry circuit(20mV,1mA Max)at minimum deflection Spec: EIA-364-23B	Signal contact:50m Ω Max Power contact:30 m Ω Max
6.2	Insulation Resistance	When applied DC 100V between adjacent terminal or ground Spec: EIA-364-21C	More than 100M Ω
6.3	Dielectric strength	When applied AC 100V 1 minute between adjacent terminal Spec: EIA-364-23B	No flashover or breakdown

## 7.MECHANICAL REQUIREMENT

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
7.1	Durability	10 times insertions and extractions Spec: EIA-364-9C	Signal contact:50m Ω Max Power contact:30 m Ω Max No flashover or breakdown
7.2	Vibration	Frequency 10 to 55 to 10Hz,approx 5min,single amplitude 0.75mm , 10cycles,for 3 directions Spec: EIA-364-28D	No electrical discontinuity of 1us. No flashover or breakdown
7.3	shock	490m/s <sup>2</sup> duration of pulse 11ms at 3 times for 3 directions Spec: EIA-364-27B	No electrical discontinuity of 1us. No flashover or breakdown



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### 8. ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT										
8.1	Rapid change of temperature	<p>Samples shall be placed in the test chamber with the test condition for 5 cycles</p> <table border="1"> <tr> <td>Temperature (°C)</td> <td>-55</td> <td>+25</td> <td>+85</td> <td>+25</td> </tr> <tr> <td>Time(minute)</td> <td>30</td> <td>5</td> <td>30</td> <td>5</td> </tr> </table> <p>Spec: EIA 364-32A</p>	Temperature (°C)	-55	+25	+85	+25	Time(minute)	30	5	30	5	<p>Signal contact:50m Ω Max Power contact:30 m Ω Max Insulation Resistance:100M Ω Min No flashover or breakdown</p>
Temperature (°C)	-55	+25	+85	+25									
Time(minute)	30	5	30	5									
8.2	Humidity Life	<p>Solder connectors on PCB, expose to 40±2°C with 90~95% RH for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 of 2 hours, after which the specified measurements shall be performed. Spec: EIA-364-31B</p>	<p>Signal contact:50m Ω Max Power contact:30 m Ω Max Insulation Resistance:100M Ω Min No flashover or breakdown</p>										
8.3	Salt Spray	<p>Subject mated connectors to 35+/-2 °C and 5+/-1% salt condition for 48hours. After test, rinse the sample with water and recondition the room temperature for 2 hour Spec:EIA-364-26B</p>	<p>Signal contact:50m Ω Max Power contact:30 m Ω Max Insulation Resistance:100M Ω Min No flashover or breakdown</p>										
8.4	Solder ability	<p>235°C±2°C. At 5±0.5sec Spec:J-STD-002B</p>	<p>No evidence of physical damage, Wet solder coverage: 95%</p>										
8.5	IR Reflow	<p>test condition for reflow soldering MIL-STD-202 F, Method 210 A</p>	<p>No evidence of physical damage</p>										

