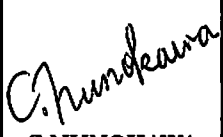
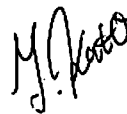


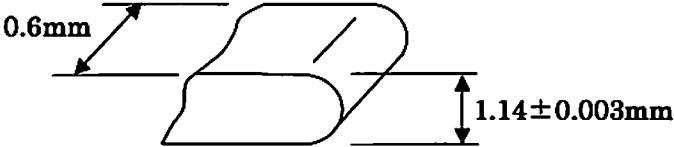
HONDA TSUSHIN KOGYO CO., LTD. TOKYO JAPAN	SHEET	1 OF 4	
	DATE	Nov.-22.2010	
PRODUCT SPECIFICATION 0.8mm SPACING HIGH DENSITY CONNECTOR FOR BOARD TO BOARD .	APPROVED BY	CHECKED BY	WRITTEN BY
	 C.NUNOKAWA	—	 Y.KATO

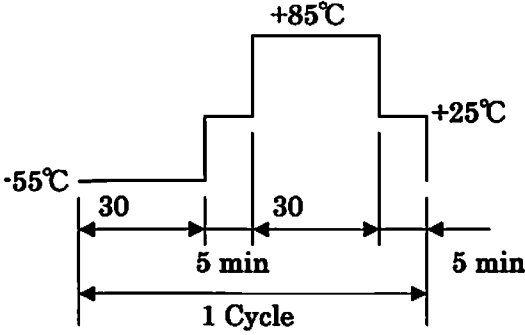
CONNECTOR PART NO.

TYPE		PART NO.	NOTE
Board to Board	Female	HDRA-EC68FDT()+	Vertical mount dip type connector with hold-down
	Male	HDRA-EC68LMDT()+	Right angle dip type connector with hold-down

CHARACTERISTICS

No.	ITEM	SPECIFICATION
1	Current Rating	0.3 amp DC maximum, per contact
2	Voltage Rating	30 volts AC (r.m.s.)
3	Operating Temperature	-55°C~85°C
4	Storage Temperature	-55°C~85°C
5	Humidity	95%RH maximum
6	Insulation Resistance	When tested in accordance with EIA 364-21, the insulation resistance shall be a minimum of 500 MΩ at 100volts DC.
7	Dielectric Withstanding Voltage	When tested in accordance with Method B EIA364-20, there shall be no breakdown of insulation or flashover at 250 volts AC (r.m.s.) for a minute.
8	Contact Resistance (Contact to contact and Shell to earth plate)	Contact to contact When tested in accordance with EIA364-23, the contact resistance shall not exceed 70mΩ including the conductor resistance. Shell to earth plate 500mΩ MAX.

No.	ITEM	SPECIFICATION												
9	Female Contact Insertion and Pulling Force (Individual)	<p>When tested in accordance with EIA364-13, contact insertion force and pulling force shall satisfy following.</p> <p>Insertion Force The force required to insert the test gauge into any contact shall not exceed 2.45 N per contact.</p> <p>Pulling Force The force required to pull the test gauge from any contact shall not be less than 0.294 N per contact.</p> 												
10	Connector Insertion and Withdrawal Force (Overall)	<p>○ Insertion Force The force required to insert a connector into the mating one shall not exceed the values in the below table.</p> <p>○ Withdrawal Force The force required to withdraw a connector from the mating one shall not be less than the values in the below table.</p> <p style="text-align: right;">UNIT : N</p> <table border="1" data-bbox="660 1038 1310 1272"> <thead> <tr> <th>No. of pos.</th> <th>Insertion Force</th> <th>Withdrawal Force</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>54.88 max.</td> <td>10.78 min.</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	No. of pos.	Insertion Force	Withdrawal Force	68	54.88 max.	10.78 min.						
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68	54.88 max.	10.78 min.												
11	Durability	When subjected to 5000 cycles of insertion and withdrawal forces with mating connector at the rate of 500 cycles per hours, there shall be no evidence damage to the connectors such as cracking. After test, "the contact to contact" resistance shall not exceed 90mΩ and "the shell to earth plate" resistance shall not exceed 500mΩ.												
12	Vibration	When tested in accordance with EIA364-28, there shall be no physical or mechanical damage to the connector. During vibration, there shall be no discontinuity of the test circuit greater than 1 microsecond. (100 mA DC of current applied for the circuit.)												
13	Physical Shock	When tested in accordance with EIA364-27, there shall be no physical or mechanical damage to the connector. During the test, there shall be no discontinuity of the test circuit greater than 1 microsecond. (100 mA DC of current applied for the circuit.)												
14	Humidity Temperature Cycling	When tested in accordance with EIA364-31, after the test, the insulation resistance shall be no less than 500 MΩ, there shall be no breakdown of insulation or flashover at 250 volts AC (r.m.s.) for a minute and "the contact to contact" resistance shall not exceed 90mΩ and "the shell to earth plate" resistance shall not exceed 500mΩ.												

No.	ITEM	SPECIFICATION
15	Thermal Shock	<p>When subjected to 25 cycles in such environment as shown below program, there shall be no evidence of cracking or crazing of the body or other physical damage to the connector. After test, "the contact to contact" resistance shall not exceed 90mΩ and "the shell to earth plate" resistance shall not exceed 500mΩ.</p>  <p>The diagram illustrates a thermal shock cycle. It starts at -55°C for a duration of 30 minutes. This is followed by a 5-minute dwell at +25°C. The temperature then rises to +85°C for another 30-minute period. Finally, it returns to +25°C for a 5-minute dwell. The entire sequence from the start of the first 30-minute dwell to the end of the final 5-minute dwell is designated as '1 Cycle'.</p>
16	High Temperature Life	<p>When tested in accordance with EIA364-32, there shall be no evidence of cracking or crazing of the body or other physical damage to the connector. After test, "the contact to contact" resistance shall not exceed 90mΩ and "the shell to earth plate" resistance shall not exceed 500mΩ.</p> <p>Temperature : +85°C Test Time : 500 hours</p>
17	Salt Spray	<p>When tested in accordance with EIA364-26, Test condition A, there shall be no any excessive corrosion on the every part of connector. After test, "the contact to contact" resistance shall not exceed 90mΩ and "the shell to earth plate" resistance shall not exceed 500mΩ.</p>
18	Resistance to Mix Flowing Gas	<p>When tested in accordance with EIA364-65,environment class 3, Connectors are exposed in such environment with Cl₂ gas of 20±5ppb, NO₂ gas of 200±50ppb and H₂ S gas of 100±20ppb. There shall be no any excessive corrosion on the every part of connector. After test, "the contact to contact" resistance shall not exceed 90mΩ and "the shell to earth plate" resistance shall not exceed 500mΩ.</p> <p>Test Time : 20 days</p>

No.	ITEM	SPECIFICATION
19	Solvent Resistance	When tested in accordance with Method 215E of MIL-STD-202F, the connector shall be capable of being cleaned by ethyl alcohol. After test, there shall be no evidence of swelling, cracking, dissolving or any other defect.
20	Solderability	When connectors are assembled to printed circuit boards the termination area of contact must fixed to p.c. board pad at a temperature of $250 \pm 10^{\circ}\text{C}$ for 10 seconds.
21	Solder Heat	When connectors are assembled to printed circuit boards and processed through a reflow machine in such environment at a maximum temperature of $265 \pm 5^{\circ}\text{C}$ for 3~5 seconds. there shall be no damage to the connectors.