

ENGINEERING DEPT.		PRODUCT SPECIFICATION  For CVS3 Series Connector System	SPEC.NO.: SPCVS003B
REVISIONS	ECR12084-5 ECN12074-5		PAGE: 5/1

1. SCOPE:

This product specification contains the test method the general performance and requirement for CVS3 series connectors.

2. APPLICABLE DOCUMENTS:

Reference documents listed below shall be the latest revision unless otherwise specified. Should a conflict occur between this specification and any of the listed documents then this specification shall prevail.

2.1 Industry standards :

EIA-364-□□ electrical connector test procedures

3. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

4. MATERIALS

See attached drawings

5. ACCOMMODATED P.C.BOARD

5.1 Thickness: 0.8 mm (.031") ~ 1.6 mm (.063")

5.2 P.C. Board Layout: See attached drawings



REVIEWED : Jerry    APPROVED : Francis    VERIFIED : Clarie .

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#### 6. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
6.1	Rated current and voltage		0.5A DC max. 50V AC/DC max.
6.2	Contact Resistance	Measured at 20 mV maximum open circuit at 100mA .Mated test contacts must be in a connector housing. Test as per EIA364-23	Initially :Less than 80 mΩ Finally :Less than 100 mΩ
6.3	Dielectric strength	Test between adjacent contacts with a voltage of 150 V AC for 1 minute at Sea level. Test as per EIA364-20 Method B	No current leakage and flashover or damage detected.
6.4	Insulation Resistance	After 250 V DC for 1 minute , measure the insulation resistance between the adjacent contacts. Test as per EIA364-21	More than 100 MΩ

#### 7. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Mating	Measure the force necessary to insert the connector between male and female at a maximum rate of 12.5 mm per minute. Test as per EIA364-13	5.0 Kgf max.
7.2	Unmating	Measure the force necessary to insert the connector between male and female at a maximum rate of 12.5 mm per minute. Test as per EIA364-13	0.8 Kgf min.
7.3	Durability	The connector shall be subject to 20 cycles for insertion and extraction .Test done at a maximum rate of 200 cycles per hour. Test as per EIA364-09	Appearance: No damage Meet requirements of specified in 6.2 , 7.1 , 7.2

#### 8. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Vibration	Subject mated connectors to : Power spectral density : 0.02 g <sup>2</sup> /Hz Overall RMS .g : 5.35 Duration : 15 minute in each X.Y.Z. axis mutually perpendicular planes. Test as per EIA 364 – 28 Condition V Test letter A.	Appearance: No damage Discontinuity: 1 micro second max.

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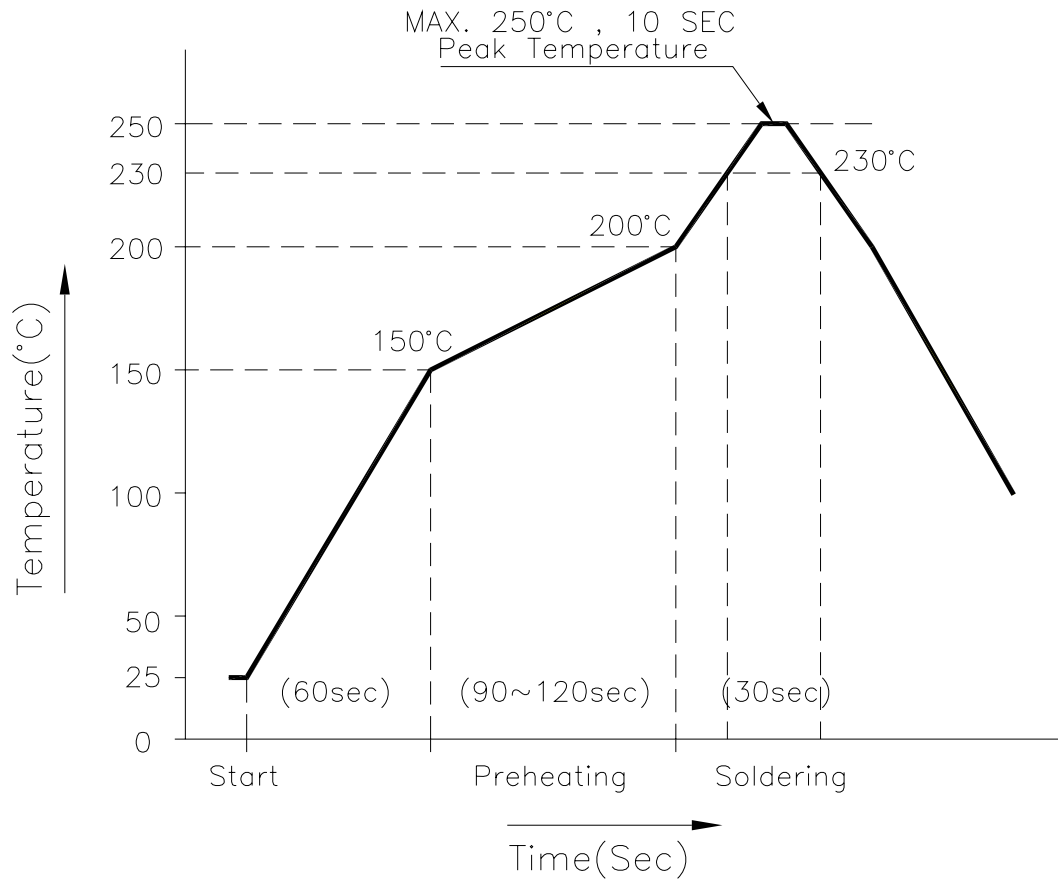
	ITEM	TEST CONDITION	REQUIREMENT
8.2	Physical Shock	Subject mated connectors to 30 g's half-sine shock pulses of 11ms duration. Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks. Test as per EIA364-27 condition H	Appearance: No damage Discontinuity: 1 micro second max.
8.3	Humidity	Subject unmated connectors to 96 hours at 40°C with 90% to 95% RH. Test as per EIA 364 – 31 Method II Test Condition A.	Appearance : No damage Contact resistance and insulation resistance shall meet requirement of 6.2 , 6.3 , 6.4
8.4	Temperature cycling	Subject unmated connectors shall be tested in accordance with EIA364-32 Test Condition I . (1)-55°C ,30 minute (2)+25°C ,5 minute (3)+85°C ,30 minute (4)+25°C ,5 minute consecutive 5 cycles.	Appearance : No damage Contact resistance and insulation resistance shall meet requirement of 6.2 , 6.3 , 6.4
8.5	Heat aging	Subject mated connectors to temperature life at 85°C±2°C for 250 hours. Test as per EIA 364 – 17 Test Condition 3 Method A.	Appearance : No damage Contact resistance shall be meet 6.2
8.6	Salt Spray (Note:1)	Unmated connectors shall be tested in accordance with EIA364-26 Condition B Temperature : 35°C +1°C/-2°C Density : 5% in weight Duration : 48 hours	Appearance of contact area shall be no rusted or erodent. Contact resistance shall be meet 6.2
8.7	Solder ability	Steam age 1 hour at 90°C ~96°C Solder time to be 5±1 seconds at 245°C , using unactivated flux. Test as per EIA364-52	Minimum: 95% of immersed area
8.8	Soldering Heat Withstanding	Reflow soldering (Infrared): Refer soldering method The conditions specified on paragraph 10 Shell be repeated twice.	Inspect dimension during the test, no physical damage

Note : 1. Plating under the 5μ" is not suited.

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9. Operating temperature range : -55℃ to 85℃

10. Recommended Infrared Reflow Condition:



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Test of description \ Test Group		A	B	C	D	E	F	G	H
1	Examination of Product	1,9	1,9	1,5	1,5	1,9	1,3	1,3	1,4
2	Low level Contact Resistance	3,7	2,6	2,4	2,4	2,6			
3	Dielectric Withstanding Voltage		4,8			4,8			
4	Insulation Resistance		3,7			3,7			
5	Insertion Force	2,6							
6	Removal Force	4,8							
7	Durability	5							
8	Humidity		5						
9	Temperature Life			3					
10	Salt Spray				3				
11	Thermal shock (Temperature cycling)					5			
12	Solderability						2		
13	Soldering Heat withstanding							2	
14	Random vibration								2
15	Physical shock								3