

RELIABILITY TEST REPORT

TEST ITEM: 1.ELECTRICAL
2.MECHANICAL
3.ENVIRONMENTAL

SERIES NO.: CI15 For Using Lead-free

TEST EQUIPMENT: 1.INSERTION & REMOVAL APPARATUS
2.ELECTRONIC MEASURING APPARATUS
3.ENVIRONMENTAL APPARATUS

DATE OF TESTING: 3 / 15 / 05

TEST DEPART: QA TESTER: Scott.Lien

CONTAIN: ATTACHED

REVIEWED : Jackal APPROVED : Rita VERIFIED : Scott.Lien .

1. ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
1-1	Contact resistance	Dry circuit of DC 20 mV max.100 mA max.	Less than 20 mΩ	Sample	20 mΩ max.
				1	1.85 mΩ
				2	1.83 mΩ
				3	1.89 mΩ
				4	1.86 mΩ
				5	1.81 mΩ
1-2	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal	No change	Sample	500 V 1 minute
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
1-3	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 MΩ	Sample	500 MΩ min.
				1	25×10 ⁵ MΩ
				2	35×10 ⁵ MΩ
				3	30×10 ⁵ MΩ
				4	40×10 ⁵ MΩ
				5	30×10 ⁵ MΩ

2. MECHANICAL PERFORMANCE:

2-1	Pin retention force	Push pin from insulator base at speed 25±3 mm per minute	More than 0.7 Kgf	Sample	> 0.7 Kgf
				1	1.29 Kgf
				2	1.34 Kgf
				3	1.17 Kgf
				4	1.45 Kgf
				5	1.26 Kgf

3. ENVIRONMENTAL PERFORMANCE:

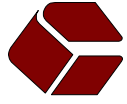
	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1	Temperature rise	Then carried the rated current	30 max.	Sample	30 max.
3-2	Vibration	1.5 mm 10-55-10 HZ/minute each 2 hours for X, Y and Z directions	Appearance: No damage	Sample	No damage
			Discontinuity: 1 micro second max.	Sample	1 micro second max.

3-3	Solderability	Soldering time: 5 ± 0.5 sec. Soldering pot: 230 ± 5	Minimum: 90% of immersed area	Sample	90% of Immersed area
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-4	Resistance to soldering heat	Soldering time: 5 ± 0.5 sec. Soldering pot: 260 ± 5	No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-5	Heat aging	85 ± 2 , 96 hours	No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-6	Humidity	40 ± 2 , 90-95%RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	1.88 m Ω
				2	1.89 m Ω
				3	1.86 m Ω
				4	1.91 m Ω
			Dielectric strength: To pass Para 1-2	Sample	Pass para 1-2
				1	Pass
				2	Pass
				3	Pass
4	Pass				
3-7	Temperature cycling	One cycle consists of: 1. -55^{+0}_{-3} , 30 min 2. Room temp. 10-15 min 3. 85^{+3}_{-0} , 30 min 4. Room temp. 10-15 min	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass



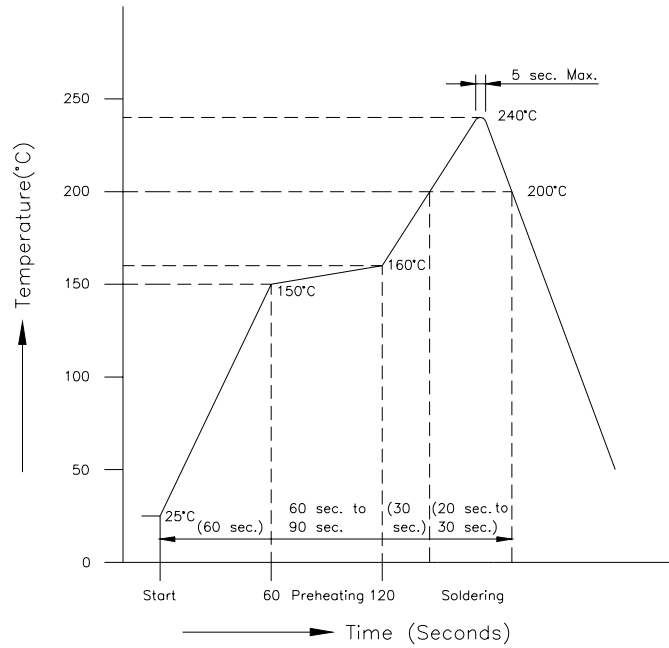
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	1.93 mΩ
				2	1.94 mΩ
				3	1.87 mΩ
				4	1.89 mΩ
				5	1.90 mΩ
3-8	Salt spray	Temperature:35 ± 3°C Solution:5 ± 1% Spray time:48 ± 4 hours Measurement must be taken after water rinse	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	1.91 mΩ
				2	1.97 mΩ
				3	1.95 mΩ
				4	1.94 mΩ
				5	1.97 mΩ

4. AMBIENT TEMPERATURE RANGE:-25 to +85



● Recommended Temperature Profile

● Using Typical Solder Paste



● Using Lead-free Solder Paste

