ELECTRIC CONNECTOR TECHNOLOGY	Product Specification	DOC. No.: 651-10551-01	Rev.: A	Page: 1/7
	PART No.: 818010551	Approved/Date	Checked/Date	Made/Date
		Tan 04/26/17	Tan 04/26/17	ENFP 04/26/17

1、SCOPE

The product described is a Antenna RF Spring connector, which is used to connect between the Antenna and the PCB .

2 、PRODUCT DESCRIPTION

2.1 Product name and Product number

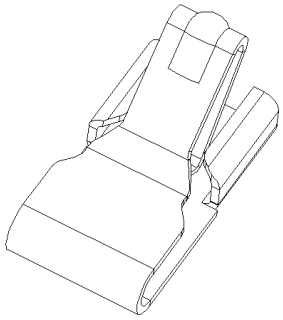
Product name: Antenna RF Spring, SMT, Au Plating, L1.9*W1.0*H1.1.
Product number: 818010551

2.2 Dimension, material, plating and marking

See the appropriate Customer Drawings for information on dimensions, materials, plating, and markings.

3、TECHNICAL PARAMETERS

3.1 Rated current： 2A
3.2 Rated voltage： 10V DC
3.3 Rated Power： 10w
3.4 Impedance: 50 Ω.
3.5 Temperature rise vs current： 30℃ maximum
3.6 V.S.W.R.: 1.5Max.(DC~3GHz)
3.7 Insertion Loss: 0.6dBMax.(DC~3GHz)
3.8 Temperature:
Operating : -40℃～+85℃
Storage : -30℃～+70



4、PERFORMANCE

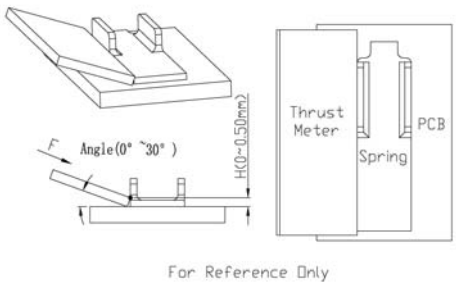
4.1 Appearance Requirements

Item	Description	Test Condition	Requirement
4.1.1	Visual and dimension inspections	Visual, dimension and functional per applicable quality inspection plan.	Meets requirements of product drawing. No physical damage.

4.2 Electrical Requirements

Item	Description	Test Condition	Requirement
4.2.1	Contact Resistance (Low Level)	Mated connector: apply a maximum voltage of 20mV and a current of 100mA. Per EIA-364-23B	The initial: 50 mΩ Max; △R=30 mΩ Max changed after environmental exposure

4.3 Mechanical Requirements

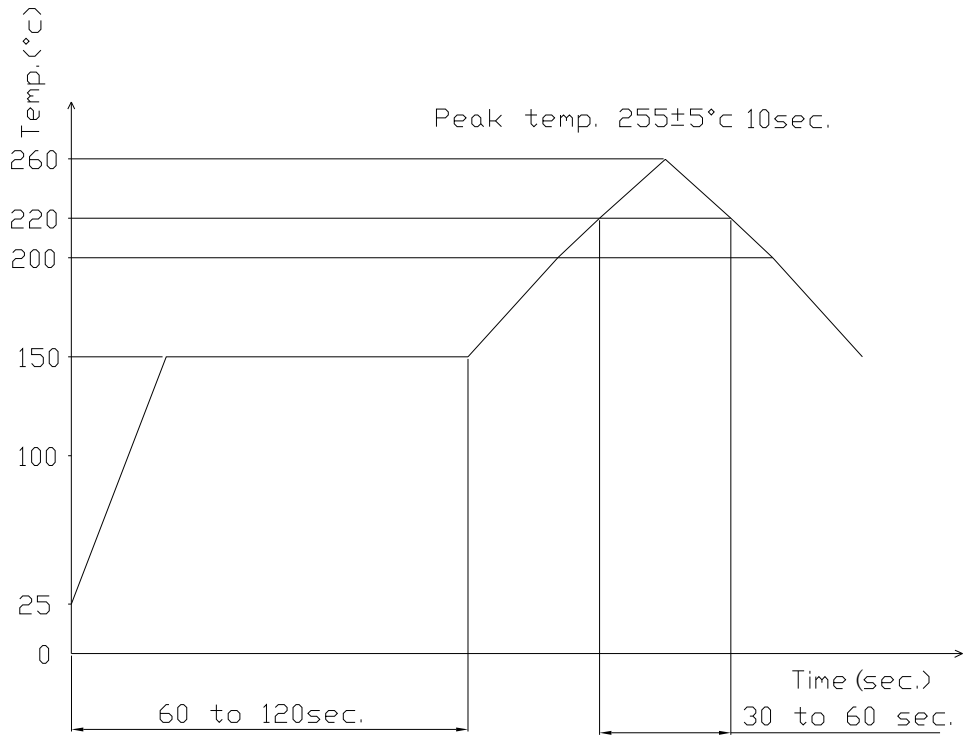
Item	Description	Test Condition	Requirement
4.3.1	Normal Force at Working height	Press the Contact Point Till the contact point at Working height, Per EIA-364-09B	50-150gf on Contact Point
4.3.2	Durability	Press and Replace are repeated 1500 cycles with connector at the speed rate of 450~550 cycles/hour, Per EIA-364-09B	Appearance: no damage Contact Resistance △R=10 mΩ maximum
4.3.3	Vibration	Peak acceleration:10G Frequency: 20~1000Hz Amplitude : 1.52mm inspected 12 cycles per axis (total 36 cycles) of full frequency range in 60 minutes /cycle with suitable connector	Appearance: no damage Contact Resistance △R=10 mΩ maximum No electrical shut down more than 1 μ s
4.3.4	Mechanical Shock	Peak value of acceleration: 490m/s^2 Duration : 11ms Wave form : half sinusoidal Directions,cycle : 6 mutually perpendicula direction, 3cycles about each direction	Appearance: no damage Contact Resistance △R=10 mΩ maximum No electrical shut down more than 1 μ s
4.3.5	peeling off strength	Push the spring away from the PCB pad:  For Reference Only	25N Min.

4.4 Environmental Requirements

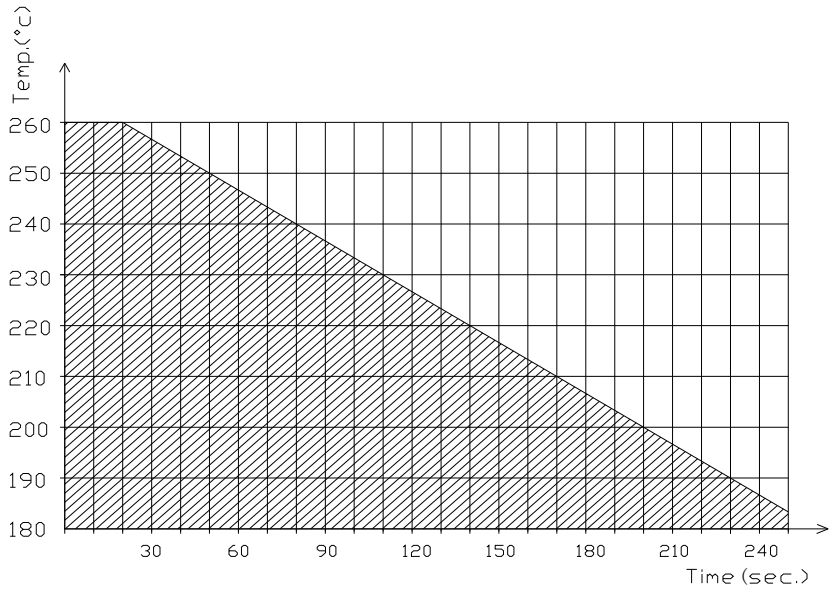
Item	Description	Test Condition	Requirement
4.4.1	High relative Humidity exposure	Mated and exposure to the condition of 25~65℃ ,90~95% RH, (7 days). Recovery time 1~2hours. Per EIA-364-31	Appearance: no damage Contact Resistance △R=30 mΩ maximum
4.4.2	Thermal shock	The connector shell be mated and exposure to the following condition for 10 cycles continuous. a) -55℃ for 30 minutes. b) 85℃ for 30 minutes. Transit time shall be within 5minutes, recovery time 1~2 hours. Per EIA-364-32	Appearance: no damage Contact Resistance △R=30 mΩ maximum
4.4.3	Salt spray	The connector shall be mated and exposure to the following salt mist conditions. At the completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified measurements shall be performed. Concentration : 5±1% Spray time: 24 hours Temperature: 35±2℃	Appearance: no damage Contact Resistance △R=30 mΩ maximum
4.4.4	Solder ability	Dip solder tails into the molten solder at 255±5℃ for 5±0.5 sec.	Solder coverage: 95% Minimum
4.4.5	Resistance to soldering Reflow Heat	Infrared the reflow condition of 5.1	No damage after 3 times of reflow Measurement after 24±2 hours

5、SMT TEMPERATURE CURVE

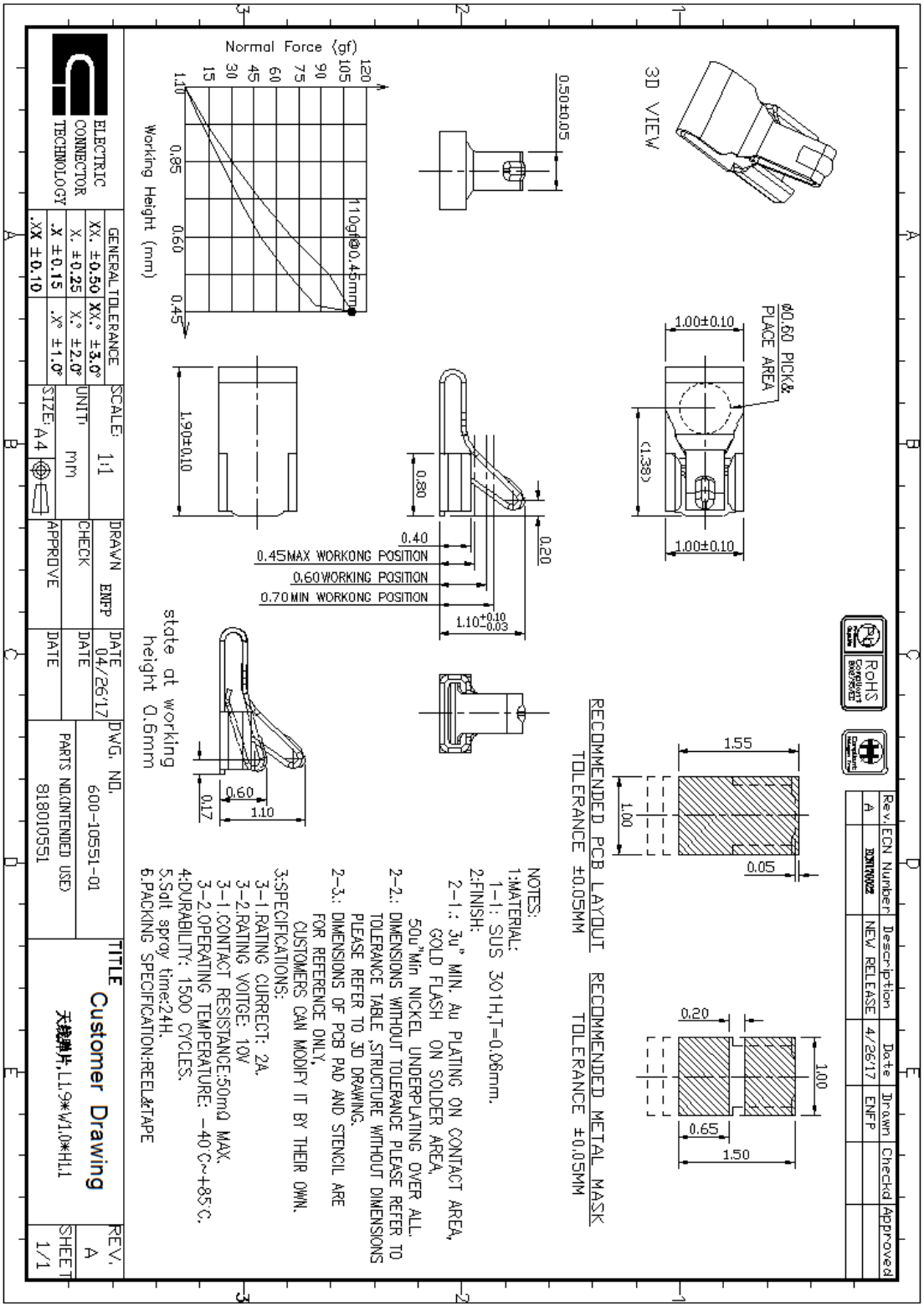
5.1 Recommended TEM.&Time relative curve of RE-FLOW.



5.2 Extremed TEM.&Time curve of RE-FLOW.



6、PROFILE DIMENSIONS



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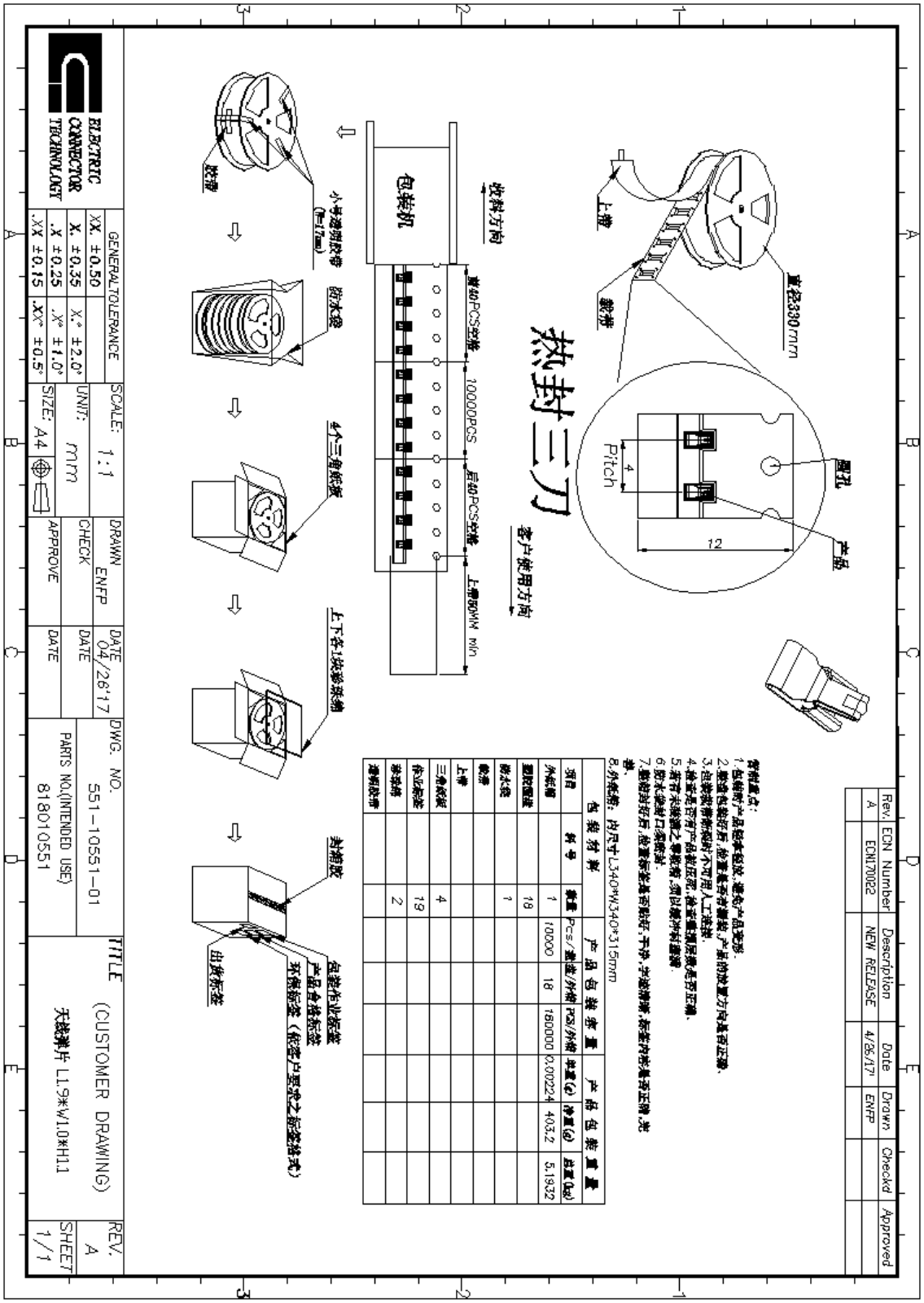
7、PACKAGING SPEC.



8、STORAGE CONDITION

Temperature：-30 ～ +70 ℃

Relative Humidity：15 ～ 85 % RH

Life : Use this product within 18 months after receipt. Check the terminal solder ability before use if the product has been stored for more than 18 months.

9、TEST SEQUENCE AND SAMPLE QUANTITY

Item		A	B	C	D	E	F	G	H	I
4.1.1	Visual and dimensional inspections	1,7	1,5	1,5	1,5	1,3	1,3	1,5	1,5	1,3
4.2.1	Contact Resistance	2,6	2,4	2,4	2,4			2,4	2,4	
4.3.1	Force at Max. Deflection	3,5								
4.3.2	Durability	4								
4.3.3	Vibration							3		
4.3.4	Mechanical Shock								3	
4.3.5	peeling off strength									2
4.4.1	High relative Humidity exposure		3							
4.4.2	Thermal shock			3						
4.4.3	Salt spray				3					
4.4.4	Solder ability					2				
4.4.5	Resistance to soldering Reflow Heat						2			
	Sample QTY	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs