



Product Specification :	ISSUED BY: Engineering Dept	
Subject : SCT0802 Series Specification	Date Issued	2015/06/02
	Date Revised	2016/06/27

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1. Scope

This specification applies to SCT0801 connector series, contains the product performance, test methods and inspection requirements.

2. Spec and Part number

Specification	Production No.	Picture of Product
Terminal	SCT0802TPS164	NONE
Housing	SCT0802H-xxSBK164	NONE
Wafer	SCT0802WRS-xxF1BK164	NONE

3. Disposal of Material and surface

Specification	Materials	Disposal of Surface
Terminal	Phosphor bronze	Tin Plated: Over 70μ" .Nickel: Over 30μ"
Housing	PA46T	UL 94V-0
Wafer	Base	LCP
	PIN	Phosphor Bronze
	Solder tab	Brass

(Please Refer to the Project drawing for the above Specification)

4. Ratings and applicable wires

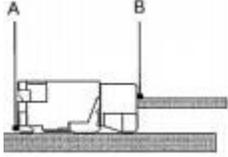
Item	Standard	
Rated Voltage (Max.)	30V	[AC/DC]
Rated Current (Max.)	0.5A	
Ambient temperature Range	- 25 C~ + 85 C	
Applicable wire insulation O. D	AWG 32-36# Insulation O. D. 0.6mm(Max.)	

* Including terminal temperature rise.

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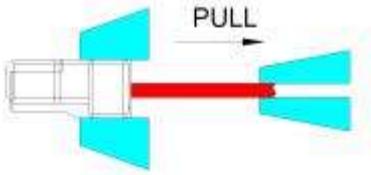
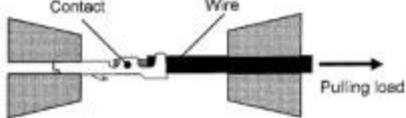
5. PERFORMANCE

5-1. Electrical Performance.

【Item】		【Test Condition】	【Requirement】
5-1-1	Contact Resistance	<p>Mate connectors, measure by dry circuit, 20mV MAX, 10mA. (Based upon EIA-364-06A).</p> 	<p>Initial: 20 milliohms Max. After Test: 40 milliohms Max.</p>
5-1-2	Insulation Resistance	<p>Mate connectors, apply 250V DC between adjacent terminal or ground. (Based upon EIA-364-21B / MIL-STD-202 Method 302 Cond.B)</p>	100 Megohms Min.
5-1-3	Dielectric Strength	<p>Mate connectors, apply 200V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A / MIL-STD-202 Method 301)</p>	No Breakdown and Flashover
5-1-4	Contact resistance on crimped portion	<p>Crimp the applicable wire on to the terminal measure by dry circuit 20mV MAX, 10mA.</p>	20 milliohms Max.

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5-2. Mechanical Performance.

【Item】		【Test Condition】	【 Requirement】	
5-2-1	Insertion & withdraw Force	Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute.	Refer to paragraph 6	
5-2-2	Terminal/ Housing Retention Force	Apply axial pull out force at the speed rate of 25.4±3mm/minute on the terminal assembled in the housing.	3.43N {0.35kgf} Min.	
				
5-2-3	Terminal Insertion Force	Insert the crimped terminal into the housing.	4.9N {0.5kgf} Max.	
5-2-4	Pin Retention Force	Apply axial push force at the speed rate of 25.4±3mm/minute.	2.5N {0.25kgf} Min.	
5-2-5	Tensile strength (Crimped connections)	Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part).	AWG#	#32
			Spec.kgf. Min.	0.3
			Note> As for unspecified wire sizes in this specification define values with clients	

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5-3. Environmental Performance and Others.

【Item】		【Test Condition】	【Requirement】	
5-3-1	Repeated Insertion/Withdrawal	When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.	Contact Resistance	40 milliohms Max.
5-3-2	Temperature Rise	Mating connectors shall be energized at rating current until thermal stability is achieved, and then measured the temperature rise. (EIA364-70, Method 1)	Temperature rise	30°C Max.
5-3-3	Vibration test	Amplitude: 1.5mm P-P Sweep time: 10~55~10 HZ in 1 minute Duration: 2 hours in each X.Y.Z axials. (Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A)	Appearance	No Damage
			Contact Resistance	40 milliohms Max.
			Discontinuity	1 micro-second Max.
5-3-4	Shock test	490m/s ² {50G}, 3 strokes in each X.Y.Z. axes. (Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond.A)	Appearance	No Damage
			Contact Resistance	40 milliohms Max.
			Discontinuity	1 micro-second Max.
5-3-5	Heat Resistance	105±2°C, 96 hours. (Based upon MIL-STD-202 Method 108A Cond.A)	Appearance	No Damage
			Contact Resistance	40 milliohms Max.
5-3-6	Cold Resistance	-40±5°C, 96 hours. (Based upon EIA-364-105)	Appearance Contact Resistance	No Damage 40 milliohms Max.

【Item】		【Test Condition】	【 Requirement】	
5-3-7	Humidity	Temperature: $40 \pm 2^{\circ}\text{C}$ Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)	Appearance	No Damage
			Contact Resistance	40 milliohms Max.
			Dielectric Strength	Must meet 5-1-3
			Insulation Resistance	40 Megohms Min.
5-3-8	Temperature Cycling	5 cycles of: a) -40°C 30 minutes. b) $+105^{\circ}\text{C}$ 30 minutes. (Based upon EIA-364-32B)	Appearance	No Damage
			Contact Resistance	40 milliohms Max.
5-3-9	Salt Spray	24 ± 1 hours exposure to a salt spray from the $5 \pm 1\%$ solution at $35 \pm 2^{\circ}\text{C}$. (Based upon EIA-364-26B/MIL-STD-202 Method 101D Cond.B).	Appearance	No Damage
			Contact Resistance	40 milliohms Max.
5-3-10	Solder-ability	Soldering Time: 3~5second. Solder Temperature: $255 \pm 5^{\circ}\text{C}$. (Based upon EIA-364-52)	Solder Wetting	95% of immersed area must show no voids, pin holes.
5-3-11	Solder Resistance	Soldering time: 5~10 sec solder. Temperature: $245 \pm 5 / -5^{\circ}\text{C}$. (Based upon EIA-364-56A)	Appearance	No Damage

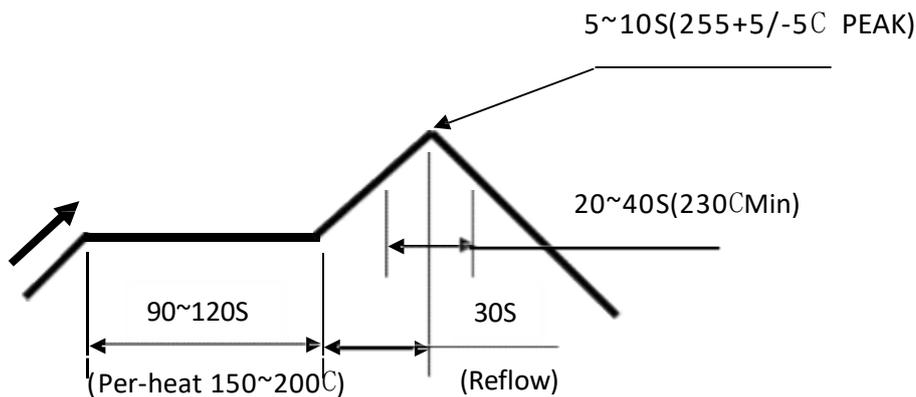
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6. INSERTION/WITHDRAWAL FORCE】 <Connector mating force>

Number of circuits	At initial		Number of circuits	At initial	
	I.F. (max)	W.F. (min)		I.F. (max)	W.F. (min)
2	4.00	2.00	12	10.00	3.00
3	5.00	2.00	14	14.00	4.00
4	6.00	2.00	15	14.00	4.00
5	7.00	2.50	16	14.00	4.00
6	8.00	2.50	18	15.00	4.00
7	9.00	2.50	20	15.00	4.00
8	10.00	2.50			
9	10.00	2.50			
10	14.00	3.00			
11	14.00	3.00			

Note : Insertion and Withdrawal for 30Cycles

7.SMT REFLOW CONDITION



TEMPERATURE CONDITION GRAPH/ (TEMPERATURE ON BOARD PATTERN SIDE)

Notes: Please check the reflow soldering condition by your own devices beforehand. Because the condition changes by the soldering devices, P.C. boards, and so on.