Product Specification :	ISSUED BY:	Engineering Dept
Subject : 5.08mm Pitch SCT5083 Series Connector Specification	Date Issued	2012/09/13
	Date Revised	2013/08/25

This specification is referred to the 5.08mm series wire to board connector

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1. Scope

This Specification Covers the 5.08mm Pitch SCT5083 Series Connector Specification.

2. Spec and Part number

Specification	Production No.	Picture of Product
Terminal	SCT5083FTBS134 SCT5083MTBS134	NONE
Housing	SCT5083MH-04CBK134	NONE
Wafer	SCT5083WV-04C0WT103 SCT5083WVA-04C0WT103 SCT5083WRAF-04C0WT103	NONE

3. Disposal of Material and surface

Specification		Materials	Disposal of Surface
Terminal		Phosphor Bronze/ Brass	Tin Plated:Over 40μ″ .Nickel: Over 15μ″ . Tin Plated:Over 70μ″ .Nickel: Over 30μ″ .
Housing		PA66	UL 94V-2/UL 94V-0
Wafer	Base	PA66/High Temperature Plastic	UL 94V-2/UL 94V-0
	PIN	Brass	Over Tin 70μ″ Plated;Over 30μ″ Nickel.

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

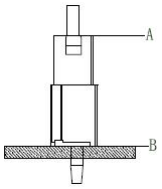
4. Ratings and applicable wires

Item	Standard	
Rated Voltage (Max.)	250V	[AC/DC]
Rated Current (Max.)	10.0A	
Ambient temperature Range	-25℃~+85℃	
Applicable wire insulation O.D	AWG 16#~22# Insulation O.D. 2.50mm(Max.)	

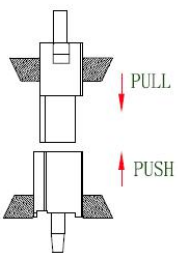
*Including terminal temperature rise.

5. PERFORMANCE

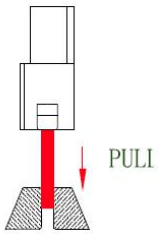
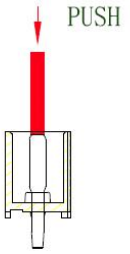
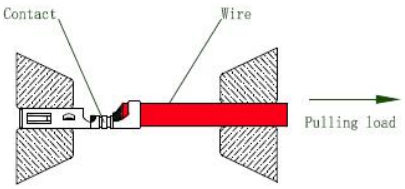
5-1. Electrical Performance.

Item		Test Condition	Requirement
5-1-1	Contact Resistance	Mate connectors, measure by dry circuit, 20mV MAX, 10mA. (Based upon EIA-364-06A). 	Initial: 25 milliohms Max. After Test: 25 milliohms Max.
5-1-2	Insulation Resistance	Mate connectors, apply 250V DC between adjacent terminal or ground. (Based upon EIA-364-21B/MIL-STD-202 Method 302 Cond.B)	1000 Megohms Min.
5-1-3	Dielectric Strength	Mate connectors, apply 250V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A/MIL-STD-202 Method 301)	No Breakdown and Flashover
5-1-4	Contact resistance on crimped portion	Crimp the applicable wire on to the terminal measure by dry circuit 20mV MAX, 10mA.	10 milliohms Max.

5-1. Electrical Performance

Item		Test Condition	Requirement
5-2-1	Insertion & Retention Force	Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute. 	Refer to paragraph 6

5-2. Mechanical Performance.

Item		Test Condition	Requirement
5-2-2	Terminal /Housing Retention Force	Apply axial pull out force at the rate of 25.4±3mm/minute terminal assembled in the housing. 	44.1N {4.5kgf} Min.
5-2-3	Terminal Insertion Force	Insert the crimped terminal into the housing.	14.7N {1.5kgf} Max.
5-2-4	Pin Retention Force	Apply axial push force at the speed of 25.4±3mm/minute. 	14.7N {1.5kgf} 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# / #16 / #18 / #20 / #22 Spec. kgf. Min. / 10 / 9.0 / 6.0 / 4.0 Note> As for unspecified wire sizes in this specification define values with clients

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	25 milliohms Max.

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Item		Test Condition	Requirement	
5-3-2	Temperature Rise	Carrying rated current load. (UL 1977)	Temperature rise	30℃ Max.
5-3-3	Vibration	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	25 milliohms Max.
			Discontinuity	1 micro-second Max.
5-3-4	Shock	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	25 milliohms Max.
			Discontinuity	1 micro-second Max.
5-3-5	Heat Resistance	85±2℃,96 hours. (Based upon MIL-STD-202 Method 108A Cond.A)	Appearance	No Damage
			Contact Resistanc	25milliohms Max.
5-3-6	Cold Resistance	-25±5℃,96 hours. (Based upon EIA-364-105)	Appearance	No Damage
			Contact Resistanc	25milliohms Max.
5-3-7	Humidity	Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)	Appearance	No Damage
			Contact Resistance	25milliohms Max.
			Dielectric Strength	Must meet 5-1-3
			Insulation Resistance	500Megohms Min.
5-3-8	Temperature Cycling	5 cycles of:a) -55℃30 minutes. b) +85℃30 minutes. (Based upon EIA-364-32B)	Appearance	No Damage
			Contact Resistance	25milliohms Max.

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Item		Test Condition	Requirement	
5-3-9	Salt Spray	24±1 hours exposure to a salt spray from the 5±1% solution at 35±2℃. (Based upon EIA-364-26A/MIL-STD-202 Method 101D Cond.B).	Appearance	No Damage
			Contact Resistance	25milliohms Max.
5-3-10	Solder-ability	Soldering Time:3±0.5second. Solder Temperature: 245±5℃. (Based upon EIA-364-52)	Solder Wetting	95% of immersed area must show no voids, pin holes.
5-3-11	Solder-Resistance	Soldering time:3~5 sec solder. Temperature:255+5/-5℃. (Based upon EIA-364-56A)	Appearance	No Damage

6. INSERTION/WITHDRAWAL FORCE <Connector mating force>

No. of CKT	First Insertion (kgf Max.)	30th Withdrawal (kgf Min.)	No. of CKT	First Insertion (kgf Max.)	30th Withdrawal (kgf Min.)
Single	2.00	0.50	04	12.00	2.50

Note:Insertion and Withdrawal for 30Cycles