

**SCT1258 Series Specification**

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## SCT1258 Series Specification

### 1. Part name & part number

Part name	Part number
Housing	SCT1258H-xxBWT105
Terminal	SCT1258TPS101
Straight Angle Dip Wafer	SCT1258WVS-xxE1BE101
Right Angle Dip Wafer	SCT1258WRS-xxE1BE101

**2. Construction, dimensions, material & surface finish:** Construction and dimensions shall be in accordance with the referenced drawings. Material and surface finish shall be as specified below.

Part name	Material	Surface finish
Housing	Nylon66	UL 94V-0
Terminal	Phosphor Bronze	Tin-plated
Wafer	Body	Nylon 9T
	Post	Phosphor Bronze
		UL 94V-0
		Tin-plated

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

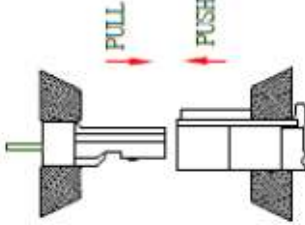
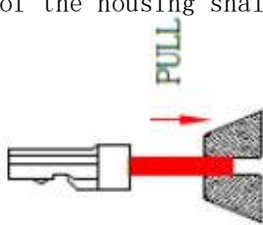
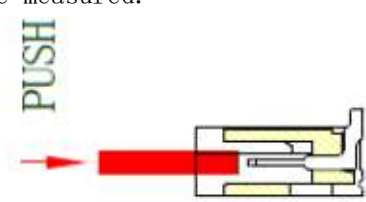
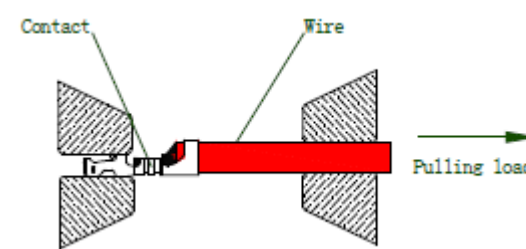
### 3. Ratings and applicable wires

Item	Standard
Rated Voltage (Max.)	150V
Rated Current (Max.)	1A
Environmental temperature Range	-40°C~+85°C
Applicable wire insulation O.D	AWG26-30# Insulation O. D. 0.9mm

### 4. Performance

#### 4.1 Mechanical Performance

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Performance test			
Item	Test Condition	Requirement	
4.1-1	Insertion & Withdrawal Force  Housing with crimped terminal and wafer shall be mated and unmated on the same axis. Initial insertion and withdrawal forces and withdrawal forces at 30th shall be measured for single circuit and multi-circuits. For the measurement of single circuit, housing lock shall be removed. Insertion and withdrawal speed: $20 \pm 5$ mm/minute. 	Refer to paragraph 5	
4.1-2	Contact retention force  Crimped terminal shall be mounted in a housing and pulled in an alignment. The load to pull the terminal out of the housing shall be measured. 	4.9N {0.5kgf} Min.	
4.1-3	Pin Retention Force  The end of a post shall be pushed in a perpendicular to wafer. The load to make the post start moving shall be measured. 	4.9N {0.5kgf} min.	
4.1-4	Terminal retention Force (Crimped terminal)  Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part). 	AWG#	#28    #30
		Spec.kgf . Min.	1.0    0.5
		Note> As for unspecified wire sizes in this specification define values with clients	

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#### 4.2 Electrical Performance.

Performance test			
	Item	Test Condition	Requirement
4.2-1	Contact Resistance	Initial: 30 mΩ (max) Afer environmental test: 40 mΩ (max)	Test current:10 mA (DC) Open voltage :20 mV (DC)
4.2-2	Insulation Resistance	DC 500V shall be applied between outer surface of housing and terminal and between adjacent terminals to measure insulation resistance.	Initial: 100 MΩ (min)
4.2-3	Dielectric withstanding voltage	Initially AC500V(rms) and after humidity and thermal shock tests AC 250V(rms) shall be applied between outer surface of housing and terminal and between adjacent terminals for one minutes. Test current : 1mA	There shall be no breakdown nor flashover.

#### 4.3 Environmental Performance and Others.

Performance test				
	Item	Test Condition	Requirement	
4.3-1	Repeated Insertion Withdrawal	When mated up to 50 cycles repeatedly by the rate of 10 cycles per minute.	Contact Resistance	40 mΩ Max.
4.3-2	Temperature Rise	Carrying rated current load.	Temperature rise	30°C Max.
4.3-3	Vibration	Amplitude: 1.5mm P-P Sweep time: 10~55~10 HZ in 1 minute Duration: 2 hours in each X.Y.Z axials.	Appearance	No Damage
			Contact Resistance	40 mΩ Max.
			Discontinuity	1 micro-second Max.
4.3-4	Shock	490m/s2 {50G}, 3 strokes in each X.Y.Z. axes.	Appearance	No Damage
			Contact Resistance	40 mΩ Max.
			Discontinuity	1micro-second Max.

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4.3-5	Heat Resistance	85±2°C, 96 hours.	Appearance	No Damage
			Contact Resistance	40 mΩ Max.
4.3-6	Cold Resistance	-25±5°C, 96 hours.	Appearance	No Damage
			Contact Resistance	40 mΩ Max.
4.3-7	Humidity	Temperature: 40±2°C Relative Humidity: 90~95% Duration: 96 hours	Appearance	No Damage
			Contact Resistance	40 mΩ Max.
4.3-8	Temperature Cycling	5 cycles of: a) -55°C 30 minutes. b) +85°C 30 minutes.	Appearance	No Damage
			Contact Resistance	40 mΩ Max.
4.3-9	Salt Spray	24±1 hours exposure to a salt spray from the 5±1% solution at 35±2°C.	Appearance	No Damage
			Contact Resistance	40 mΩ Max.
4.3-10	Solder-ability	Soldering Time: 3±0.5second. Solder Temperature: 245±5°C.	Solder Wetting	95%of immersed area must show no voids, pin holes.
4.3-11	Solder-Resistance	Soldering time:5~10 sec solder. Temperature:255+5/-5°C.	Appearance	No Damage

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**5. Insertion/Withdrawal Force**

PIN NO.OF	First Insertion (kgf Max.)	30th Withdrawal (kgf Min.)	PIN NO.OF	First Insertion (kgf Max.)	30th Withdrawal (kgf Min.)
Single row Series					
02	1.6	0.10			
03	1.9	0.15			
04	2.2	0.20			
05	2.5	0.25			
06	2.8	0.30			
07	3.1	0.35			
08	3.4	0.40			
09	3.7	0.45			
10	4.0	0.50			
11	4.3	0.55			
12	4.6	0.60			
13	4.9	0.65			
14	5.2	0.70			
15	5.5	0.75			
Double row Series					

Note: Insertion and Withdrawal for 30Cycles