



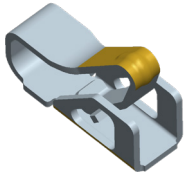
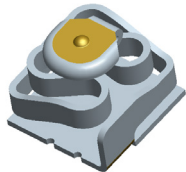
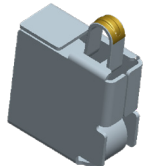
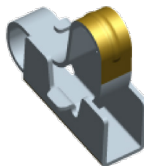
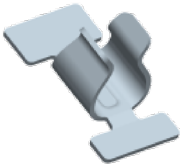
SPRING CONTACTS

Through research in basic materials and technologies,
we develop innovative products and reliable solutions
to create value for our customers.

Spring Contact Series Overview

Sunway has developed a series of spring clip connectors in order to meet engineers' needs of reliable, low loss and cost efficient connections through a standard off-the-shelf product range. The clip connectors have been used in a wide range of applications and chances are high that you are using electronic devices everyday with clips from this product line.

The clip connectors are all made for SMT reflow on PCBs and come in different shapes to meet demands for specific applications and use cases. Please see below for an overview.

Project	O-Shape	D-Shape	S-Shape	L-Shape	U-Shape
Picture					
PCB Footprint (mm)	1.5 * 1.2 to 4.6 * 1.5	1.4 * 1.4	2.2 * 1.3 to 5.8 * 3.0	1.5 * 1.2 to 4.0 * 1.5	1.9 * 3.6 to 5.4 * 1.2
Working Height (mm)	0.4 - 4.3	0.7 - 1.8	3.4 - 7.5	0.3 - 0.9 (sideways)	Cable diameters 0.81- 1.40
Contact Direction	vertical	vertical	vertical	horizontal	cable shield

You can find more detailed information in the following pages about each shape, including technical specifications, available dimensions and packaging.

In order to find out more or specify parts for your products reach out to your existing Sunway sales contact or via our website www.sz-sunway.com

You can also find our parts available through our distributor partner, please find out more at www.arrow.com

Catalogue

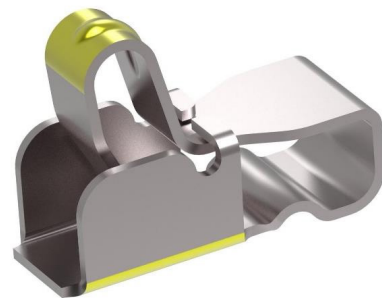
1. O-Shape Spring Connector	4
1.1 Features.....	4
1.2 Specifications.....	4
1.3 Applications.....	4
1.4 Part Selection Table	5
3.5 Contact forces (F) at different working heights (Y).....	12
2. D-Shape Spring Connector	14
2.1 Features.....	14
2.2 Specifications.....	14
2.3 Applications.....	14
2.4 Part Selection Table	15
3. S-Shape Spring Connector	16
3.1 Features.....	16
3.2 Specifications.....	16
3.3 Applications.....	16
3.4 Part Selection Table	17
4. L-Shape Spring Connector	18
4.1 Features.....	18
4.2 Specifications.....	18
4.3 Applications.....	18
4.4 Part Selection Table	19
5. U-Shape Spring Connector	21
5.1 Features.....	21
5.2 Specifications.....	21
5.3 Applications.....	21
5.4 Part Selection Table	22
6. Lead-free Soldering.....	23
7. Revision History.....	24
8. Contact Us	25

1. O-Shape Spring Connector

The O-shape spring connector is a universal SMD connector serving as an electrical connection between a device/ antenna/module and a PCB. The connector is stamped as a single-piece product and packaged tape-and-reel. The O-shape spring connector provides a dual path for the electric current, which gives a more consistent connection and lower impedance. The above features means the connector is often used for connecting antennas to a PCB. This patented connector also has mechanical advantages in terms of reliability compared to other common connectors.

1.1 Features

- Multi-path for RF/electrical current
- Highly reliable and consistent connection
- Low impedance for improved antenna efficiency
- Low stress, plastic deformation and high spring force
- Side guard to avoid over compression
- Requires only limited space on PCB
- SMT and pick-and-place using standard equipment
- Guard arc prevents solder from pushing up contact
- WEEE, RoHS and REACH compliant



1.2 Specifications

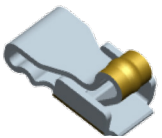
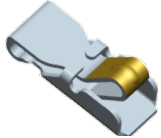

Material & Finishes		Environmental	
• Base material:	Copper/Titanium	• Operating temperature:	-40°C to 85°C
• Plating:	Nickel/Gold	• Humidity:	90% RH @ +40°C
Electrical			
• Contact resistance:	max. 18 mΩ		
• Max current:	3 A (peak 3.5 A)		
• Signal frequency:	DC to app. 6 GHz		

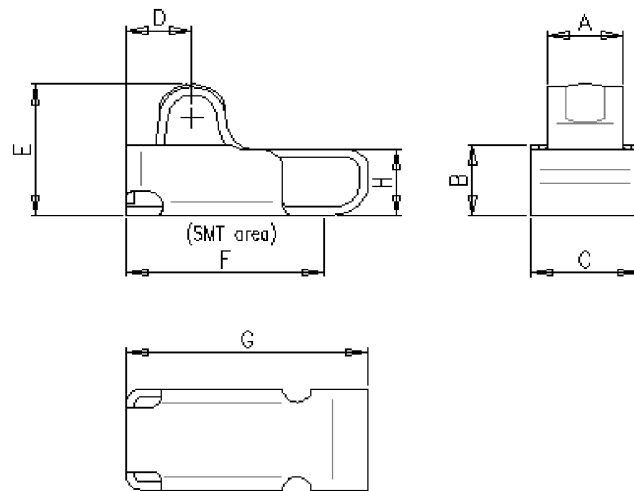
1.3 Applications

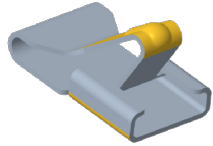
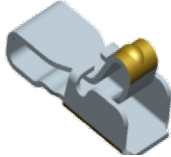
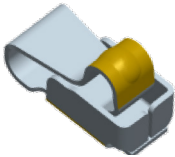
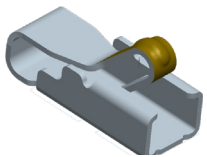
Industries	Uses
• Automotive	• Antenna feed and ground connection
• Industrial devices and equipment	• Battery and grounding connection/SIM card contact
• Consumer electronics	• Solderless component interconnect
• Medical devices	• IO connector/Board-to-Board interconnect
• Smart home devices	

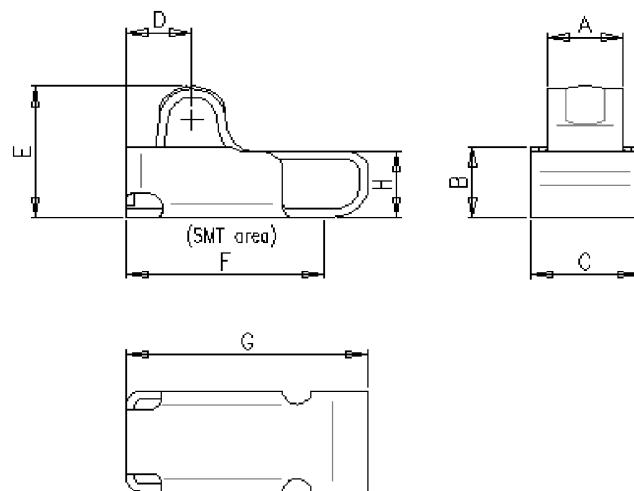
1.4 Part Selection Table

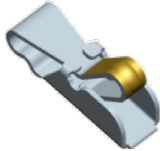
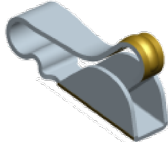
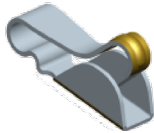
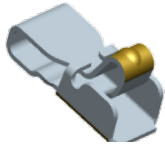
(Unit: mm)

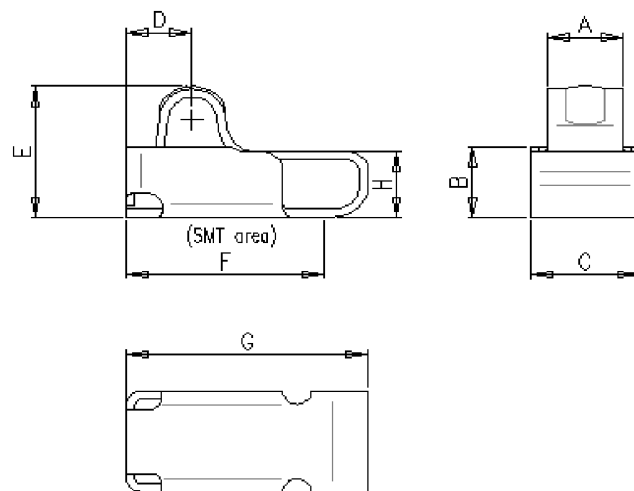
Project	O-Shape08A	O-Shape10	O-Shape11	O-Shape12A
Picture				
Sunway P/N	1100000594	1100000597	1100000600	1100000611
A	0.50	0.70	0.56	0.56
B (stop height)	0.40	0.55	0.55	0.40
C (W)	1.00	1.00	0.96	1.20
D	0.25	0.49	0.40	0.30
E (height)	0.80	1.00	1.10	1.20
F	1.50	1.88	1.90	1.80
G (length)	2.00	2.50	2.50	2.40
H	0.35	0.50	0.47	0.40
Working Height	0.60-0.40	0.80-0.60	0.90-0.60	0.90-0.50
Material	Stainless Steel	Titanium Copper	Titanium Copper	Stainless steel
PCB Size (L*W)	1.50*1.20	1.90*1.20	1.90*0.96	1.90*1.20
MPQ/Reel Size (k pcs)	12.00	3.00	3.00	8.00



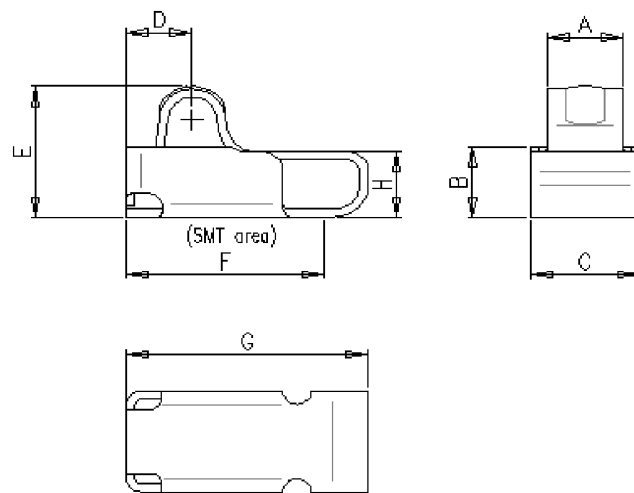
Project	O-Shape13	O-Shape13E2	O-Shape13K	O-Shape14A
Picture				
Part Number	1100000615	1100000582	1100000624	1100000631
A	0.63	0.56	0.70	0.40
B (stop height)	0.77	0.70	0.70	0.70
C (W)	1.00	0.96	1.00	1.00
D	0.80	0.49	0.60	0.48
E (height)	1.30	1.30	1.30	1.40
F	2.35	1.40	1.80	2.00
G (length)	3.48	2.37	2.20	2.50
H	0.77	0.60	0.65	0.67
Working Height	1.10-0.80	1.10-0.70	1.00-0.82	1.10-0.80
Material	Titanium Copper	Titanium Copper	Titanium Copper	Stainless steel
PCB Size (L*W)	2.23*1.00	1.40*1.00	1.70*1.00	2.00*1.00
MPQ/Reel Size (k pcs)	9.00	10.00	10.00	8.00


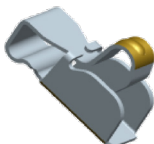

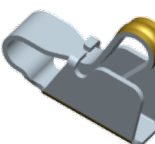


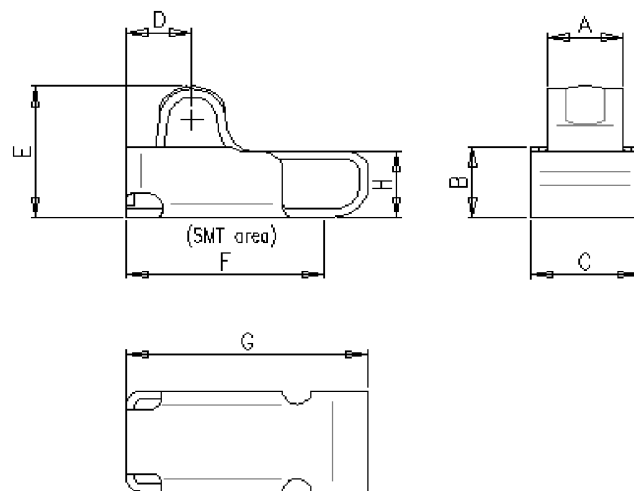
Project	O-Shape15	O-Shape15B	O-Shape18	O-Shape18B
Picture				
Part Number	1100000635	1100000636	1100000642	1100000644
A	0.56	0.80	0.60	0.56
B (stop height)	0.80	0.90	1.00	0.90
C (W)	1.00	1.50	0.90	0.96
D	0.73	0.80	0.61	0.60
E (height)	1.50	1.50	1.80	1.80
F	2.35	2.00	2.30	1.50
G (length)	3.20	2.80	3.41	2.50
H	0.70	0.80	0.90	0.80
Working Height	1.20-0.90	1.14-1.02	1.60-1.10	1.60-1.10
Material	Titanium Copper	Titanium Copper	Titanium Copper	Titanium Copper
PCB Size (L*W)	2.40*1.20	2.03*1.50	2.40*1.10	1.50*1.00
MPQ/Reel Size (k pcs)	8.00	8.00	6.00	6.00







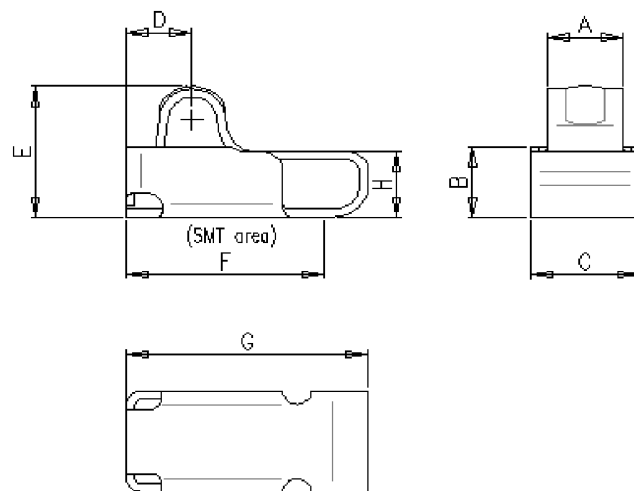
Project	O-Shape19A	O-Shape20C	O-Shape21B	O-Shape22
Picture				
Part Number	1100000652	1100000656	1100000658	1100000662
A	0.51	0.40	0.50	0.66
B (stop height)	1.05	1.30	0.95	1.00
C (W)	1.20	1.00	1.00	1.00
D	0.50	0.65	0.18	0.92
E (height)	1.90	2.00	2.10	2.20
F	2.13	2.00	2.40	2.35
G (length)	2.90	2.50	2.90	3.50
H	1.00	1.15	0.80	0.90
Working Height	1.50-1.10	1.40-1.10	1.80-1.10	1.90-1.30
Material	Titanium Copper	Stainless steel	Titanium Copper	Titanium Copper
PCB Size (L*W)	2.23*1.00	2.00*1.00	2.40*1.00	2.40*1.20
MPQ/Reel Size (k pcs)	7.20	7.00	5.00	6.00





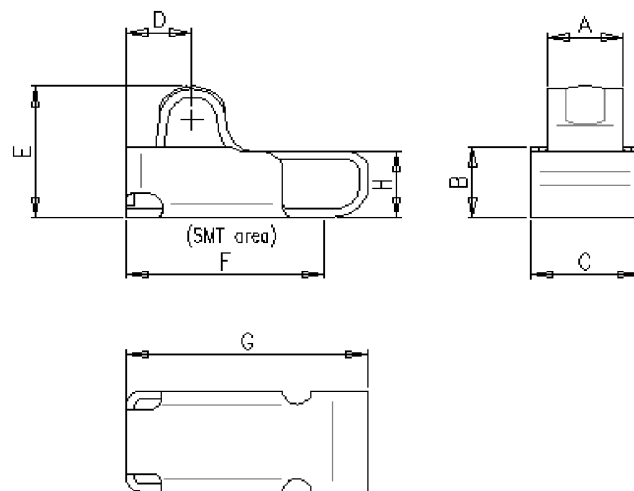
Project	O-Shape24A	O-Shape25E	O-Shape26A	O-Shape27
Picture				
Part Number	1100000665	1100000669	1100000674	1100000676
A	0.45	0.56	0.60	0.60
B (stop height)	1.25	1.35	1.50	1.50
C (W)	1.20	0.96	1.30	1.00
D	0.40	1.00	0.40	0.70
E (height)	2.40	2.50	2.60	2.70
F	2.50	2.30	2.35	2.50
G (length)	3.00	3.30	3.10	3.45
H	1.15	1.20	1.25	1.20
Working Height	2.00-1.40	2.20-1.40	2.20-1.70	2.50-1.70
Material	Titanium Copper	Titanium Copper	Stainless steel	Titanium Copper
PCB Size (L*W)	2.50*1.00	2.30*1.00	2.40*1.10	2.50*1.00
MPQ/Reel Size (k pcs)	5.00	5.50	5.00	4.50



Project	O-Shape28A	O-Shape30	O-Shape30B	O-Shape35B
Picture				
Part Number	1100000678	1100000680	1100000682	1100000686
A	0.70	0.67	0.70	0.66
B (stop height)	1.30	1.80	1.80	2.00
C (W)	1.10	1.10	1.10	1.10
D	0.82	1.20	1.20	1.20
E (height)	2.80	3.00	3.00	3.50
F	3.20	3.20	3.20	3.20
G (length)	3.90	5.00	4.20	4.70
H	1.15	1.80	1.60	1.80
Working Height	2.60-1.40	2.50-1.90	2.60-1.90	3.00-2.20
Material	Titanium Copper	Titanium Copper	Titanium Copper	Titanium Copper
PCB Size (L*W)	3.30*1.30	3.30*1.30	3.30*1.30	3.30*1.30
MPQ/Reel Size (k pcs)	5.00	4.00	4.00	3.50

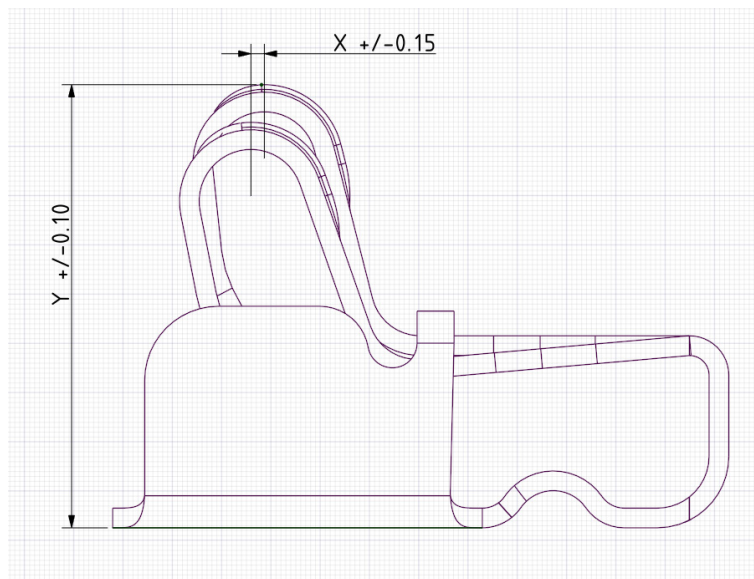


Project	O-Shape40C	O-Shape46B
Picture		
Part Number	1100000699	1100000702
A	0.66	1.05
B (stop height)	2.50	2.00
C (W)	1.10	1.50
D	0.90	1.40
E (height)	4.00	4.60
F	3.20	4.40
G (length)	4.70	5.20
H	2.20	1.80
Working Height	3.50-2.70	4.30-3.00
Material	Titanium Copper	Titanium Copper
PCB Size (L*W)	3.30*1.10	4.60*1.50
MPQ/Reel Size (k pcs)	2.80	1.50



3.5 Contact forces (F) at different working heights (Y)

Working Height Y (mm)	OS08A		OS10		OS11		OS12A		OS13		OS13E2		OS13K		OS14A		OS15		OS15B		OS18		OS18B		OS19A	
	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)
0.40	0.06	0.90																								
0.50	0.05	0.75					0.17	1.00																		
0.60	0.04	0.50	0.04	0.95	0.10	1.07	0.16	0.95																		
0.70			0.03	0.80	0.09	0.96	0.15	0.90			0.12	1.07														
0.80			0.02	0.55	0.08	0.86	0.13	0.82	0.06	1.15	0.11	1.00	0.10	1.41	0.07	0.84										
0.90					0.06	0.73	0.10	0.68	0.05	1.05	0.10	0.89	0.09	1.15	0.06	0.70	0.12	1.08					0.34	1.03		
1.00									0.04	0.90	0.09	0.71	0.08	0.80	0.05	0.60	0.11	0.97	0.09	0.80			0.33	0.95		
1.10									0.03	0.50	0.07	0.50			0.03	0.50	0.10	0.85	0.08	0.60	0.15	0.97	0.31	0.91	0.19	1.20
1.20																	0.08	0.67			0.14	0.89	0.28	0.87	0.18	1.08
1.30																					0.12	0.80	0.26	0.80	0.16	0.95
1.40																					0.10	0.68	0.24	0.72	0.15	0.82
1.50																					0.09	0.53	0.21	0.62	0.14	0.68
1.60																							0.19	0.51		



Working Height Y (mm)	OS20C		OS21B		OS22		OS24A		OS25E		OS26A		OS27		OS28A		OS30		OS30B		OS35B		OS40C		OS46B				
	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)	X (mm)	F (N)			
1.10			0.22	1.16																									
1.20			0.21	1.10																									
1.30			0.19	1.05	0.34	0.92																							
1.40	0.19	0.98	0.17	0.98	0.31	0.88	0.23	1.25	0.48	1.25					0.38	1.15													
1.50	0.17	0.88	0.14	0.90	0.28	0.82	0.22	1.14	0.46	1.19					0.36	1.08													
1.60	0.15	0.75	0.11	0.81	0.24	0.77	0.20	1.03	0.44	1.13	0.33	1.32			0.33	1.01													
1.70	0.08	0.60	0.08	0.70	0.21	0.70	0.18	0.92	0.41	1.06	0.32	1.28	0.38	1.58	0.30	0.95													
1.80			0.06	0.58	0.18	0.61	0.16	0.80	0.38	1.00	0.30	1.21	0.34	1.53	0.27	0.89													
1.90					0.16	0.50	0.14	0.68	0.34	0.93	0.28	1.08	0.30	1.47	0.24	0.80	0.27	0.88	0.45	0.96									
2.00							0.11	0.55	0.30	0.85	0.27	1.01	0.26	1.42	0.21	0.75	0.26	0.84	0.41	0.93									
2.10									0.25	0.75	0.25	0.91	0.22	1.36	0.18	0.70	0.25	0.80	0.37	0.88									
2.20									0.20	0.61	0.22	0.78	0.19	1.28	0.15	0.60	0.23	0.77	0.33	0.83	0.38	0.88							
2.30													0.16	1.19	0.12	0.50	0.21	0.70	0.29	0.76	0.37	0.86							
2.40													0.12	1.06	0.10	0.42	0.19	0.60	0.25	0.69	0.35	0.84							
2.50													0.06	0.87	0.07	0.38	0.17	0.50	0.21	0.63	0.34	0.81							
2.60													0.03	0.55	0.04	0.26				0.18	0.54	0.32	0.79						
2.70																			0.15	0.45	0.29	0.74	0.43	1.05					
2.80																					0.27	0.69	0.42	1.03					
2.90																					0.24	0.60	0.40	1.00					
3.00																					0.21	0.50	0.38	0.97	0.63	1.45			
3.10																					0.19	0.40	0.35	0.92	0.61	1.41			
3.20																							0.33	0.89	0.59	1.39			
3.30																							0.30	0.81	0.56	1.37			
3.40																							0.28	0.74	0.53	1.32			
3.50																							0.25	0.65	0.49	1.30			
3.60																										0.45	1.28		
3.70																										0.41	1.25		
3.80																										0.38	1.21		
3.90																										0.34	1.19		
4.00																										0.30	1.17		
4.10																										0.26	1.12		
4.20																										0.22	1.05		
4.30																										0.18	0.91		

2. D-Shape Spring Connector

The D-shape spring connector is a universal SMD connector serving as an electrical connection between a device/ antenna/module and a PCB. The connector is stamped as a single-piece product and packaged tape-and-reel. It provides connection perpendicular to the PCB and also provides shielding for anything that can cause vibrations within a device, such as motors, speakers and microphones.

2.1 Features

- Highly reliable and consistent connection
- Side guard to avoid over compression
- Requires only very limited space on PCB
- SMT and pick-and-place using standard equipment
- WEEE, RoHS and REACH compliant



2.2 Specifications

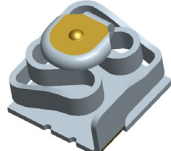
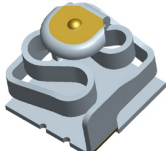
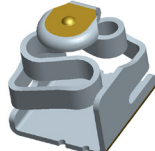

Material & Finishes		Environmental	
• Base material:	Copper/Titanium	• Operating temperature:	-40°C to 85°C
• Plating:	Nickel/Gold	• Humidity:	90% RH @ +40°C
Electrical			
• Contact resistance:	max 30 mΩ		
• Max current:	3.0 A		
• Signal frequency:	DC to app. 5 GHz		

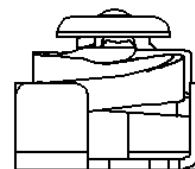
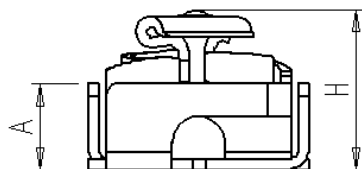
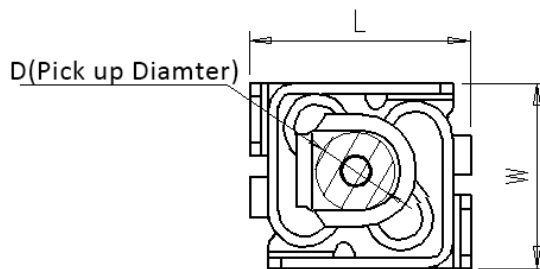
2.3 Applications

Industries	Uses
• Automotive	• Antenna feed and ground connection
• Industrial devices and equipment	• Game consoles and other consumer electronics
• Consumer electronics	• Used for grounding between a device and PCB
• Medical devices	
• Smart home devices	
• White goods	

2.4 Part Selection Table

(Unit: mm)

Project	D-Shape12B	D-Shape14B	D-Shape16B	D-Shape20B
Picture				
P/N	1100000535	1100000536	1100000537	1100000538
A	0.65	0.75	0.95	1.35
D	0.60	0.60	0.60	0.60
L	1.40	1.40	1.40	1.40
W	1.40	1.40	1.40	1.40
H	1.20	1.40	1.60	2.00
Working Height (mm)	1.0-0.7	1.2-0.9	1.4-1.1	1.8-1.5
Material	Copper Alloy	Copper Alloy	Copper Alloy	Copper Alloy
Material Thickness	0.08	0.08	0.08	0.08
Normal Force (N)	0.5 Min	0.5 Min	0.5 Min	0.5 Min
PCB Size (L*W)	1.40*1.40	1.40*1.40	1.40*1.40	1.40*1.40
Plating Spec	1.Under plate Ni 1.0um Min 2.Contact area plate Au 0.1um Min 3.Solding area plate Au 0.05um Min	1.Under plate Ni 1.0um Min 2.Contact area plate Au 0.1um Min 3.Solding area plate Au 0.05um Min	1.Under plate Ni 1.0um Min 2.Contact area plate Au 0.1um Min 3.Solding area plate Au 0.05um Min	1.Under plate Ni 1.0um Min 2.Contact area plate Au 0.1um Min 3.Solding area plate Au 0.05um Min
MPQ/Reel Size (k pcs)	8.50	8.00	7.50	7.00

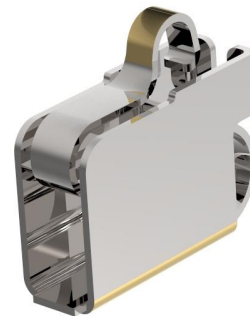


3. S-Shape Spring Connector

The S-shape spring connector is a universal SMD connector serving as an electrical connection between a device/ antenna/module and a PCB. The connector is stamped as a single-piece product and packaged tape-and-reel. Use cases are similar to the O-shape series, but the S-shape series offers larger vertical connection heights. For example, both series are often used for grounding to a PCB. This connector also has mechanical advantages in terms of reliability compared to other common connectors.

3.1 Features

- Highly reliable and consistent connection
- Dampens vibrations within a device
- Low stress, plastic deformation and high spring force
- Side guard to avoid over compression
- Requires only limited space on PCB
- SMT and pick-and-place using standard equipment
- WEEE, RoHS and REACH compliant



3.2 Specifications

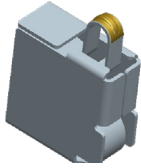
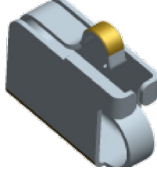
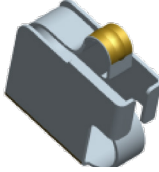
Material & Finishes		Environmental	
• Base material:	Copper/Titanium	• Operating temperature:	-40°C to 85°C
• Plating:	Nickel/Gold	• Humidity:	90% RH @ +40°C
Electrical			
• Contact resistance:	max. 70 mΩ		
• Max current:	3 A (peak 3.5 A)		
• Signal frequency:	DC to app. 5 GHz		

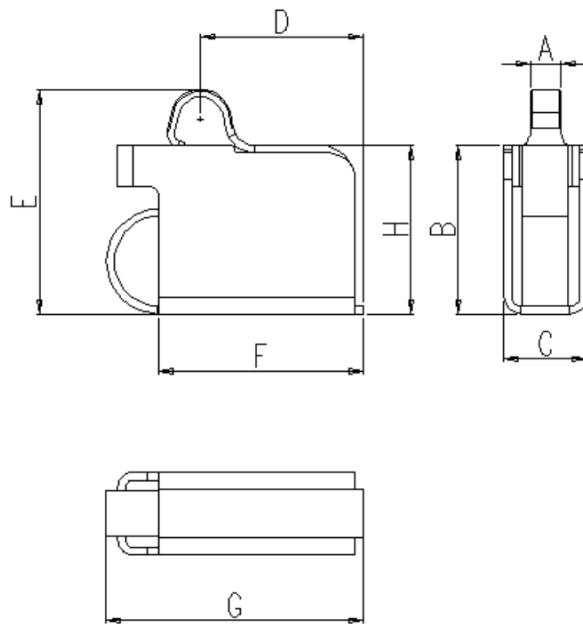
3.3 Applications

Industries	Uses
• Automotive	• Antenna feed and ground connection
• Industrial devices and equipment	• Battery and grounding connection/SIM card contact
• Consumer electronics	• Solderless component interconnect
• Smart metering	• IO connector/Board-to-Board interconnect
• Medical devices	
• Smart home devices	
• White goods	

3.4 Part Selection Table

(Unit: mm)

Project	S-Shape43A	S-Shape60A	S-Shape80A
Picture			
P/N	1100000704	1100000707	1100000708
A	0.50	0.80	1.50
B	3.20	4.50	6.00
C (W)	1.30	2.20	3.00
D	2.20	4.30	4.75
E (H)	4.30	6.00	8.00
F	2.20	5.40	5.80
G (L)	3.00	6.80	7.50
H	3.20	4.50	6.00
Working Range	3.40-3.90	4.60-5.70	6.10-7.50
Material	Copper Alloy	Copper Alloy	Copper Alloy
PCB Size (L*W)	2.20*1.30	5.40*2.20	5.80*3.00
MPQ/Reel Size (k pcs)	3.50	1.20	0.60



4. L-Shape Spring Connector

The L-shape spring connector is a universal SMD connector serving as an electrical connection between a device/ antenna/module and a PCB. The connector is stamped as a single-piece product and packaged tape-and-reel. Similar to the O-shape connector the L-shape connector also provides a dual path for the electrical current. The L-shape spring connector provides shielding for anything that can cause vibrations within a device, such as motors, speakers and microphones.

4.1 Features

- Multi-path for RF/electrical current
- Highly reliable and consistent connection
- Low impedance for improved antenna efficiency
- Side guard to avoid over compression
- Requires only limited space on PCB
- SMT and pick-and-place using standard equipment
- Guard arc prevents solder from pushing up contact
- WEEE, RoHS and REACH compliant



4.2 Specifications

Material & Finishes		Environmental	
• Base material:	Copper/Titanium	• Operating temperature:	-40°C to 85°C
• Plating:	Nickel/Gold	• Humidity:	90% RH @ +40°C
Electrical			
• Contact resistance:	max 18, 30 or 50 mΩ (depending on variant)		
• Max current:	2 or 3 A (peak 3.5 A) (depending on variant)		
• Signal frequency:	DC to app. 6 GHz		

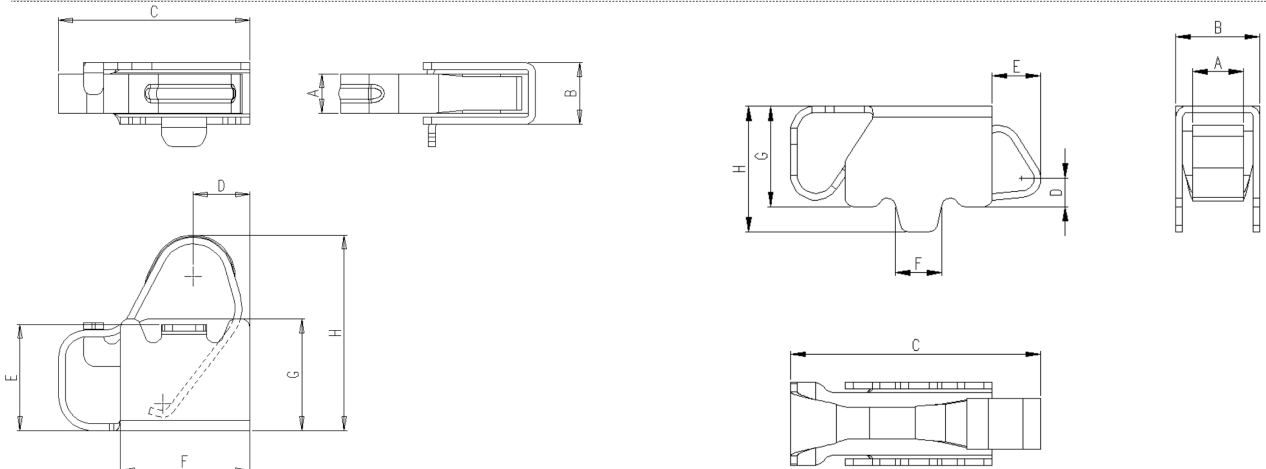
4.3 Applications

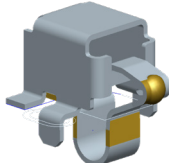
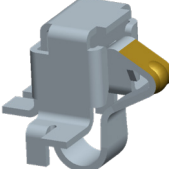
Industries	Uses
• Automotive	• Antenna feed and ground connection
• Industrial devices and equipment	• Battery and grounding connection
• Consumer electronics	• Solderless component interconnect
• Medical devices	• IO connector/Board-to-Board interconnect
• Smart home devices	
• White goods	

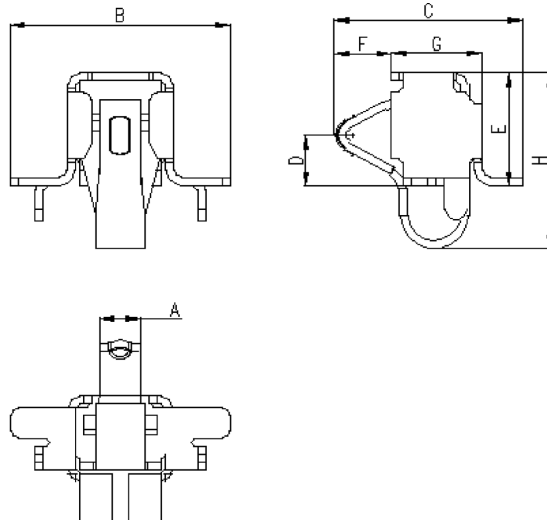
4.4 Part Selection Table

(Unit: mm)

Project	L-Shape 35A	L-Shape 36A	L-Shape 46A	L-Shape 12A
Picture				
P/N	1100005292	1100000574	1100000576	1100000566
A	0.70	0.70	1.05	0.60
B (W)	1.10	1.10	1.50	1.00
C (L)	3.40	3.30	5.20	3.00
D	1.00	1.00	1.40	0.34
E	1.90	1.90	1.28	0.60
F	2.30	2.30	0.80	0.50
G	2.00	2.00	2.00	1.20
H (H)	3.50	3.60	4.60	1.50
Working Range (Compression Distance)	0.50-1.10	0.60-1.20	0.60-1.60	0.20-0.40
Material	Copper Alloy	Copper Alloy	Copper Alloy	Copper Alloy
Material Thickness	0.12	0.12	0.15	0.10
Normal Force (N)	0.50Min	0.50Min	0.50Min	0.50Min
PCB Size (L*W)	2.30*1.50	2.30*1.50	4.00*1.50	1.20*1.50
Plating Spec	1.Under plate Ni 1.0um Min 2.Contact area plate Au 0.3um Min 3.Solding area plate Au 0.025um min	1.Under plate Ni 1.0um Min 2.Contact area plate Au 0.3um Min 3.Solding area plate Au 0.025um min	1.Under plate Ni 1.5~3.5um Min 2.Contact area plate Au 0.3um Min 3.Solding area plate Au 0.025um min	1.Under plate Ni 1.5~3.5um Min 2.Contact area plate Au 0.1um Min 3.Solding area plate Au 0.05um min
MPQ/Reel Size (k pcs)	5.00	4.50	3.50	8.00



Project	L-Shape 12C	L-Shape 145A
Picture		
P/N	1100000567	1100002561
A	0.50	0.50
B (W)	2.04	2.70
C (L)	2.28	2.33
D	0.46	0.65
E	1.20	1.48
F	0.70	0.73
G	1.58	0.95
H (H)	1.60	2.25
Working Range (Compression Distance)	0.30-0.50	0.30-0.60
Material	Copper Alloy	Copper Alloy
Material Thickness	0.08	0.10
Normal Force (N)	0.50Min	0.50Min
PCB Size (L*W)	2.04*1.58	2.70*1.70
Plating Spec	1.Under plate Ni 1.5~4.0um 2.Contact area plate Au 0.1um Min 3.Solding area plate Au 0.05um min	1.Under plate Ni 1.5~4.0um 2.Contact area plate Au 0.1um Min 3.Solding area plate Au 0.05um min
MPQ/Reel Size (k pcs)	6.50	3.00

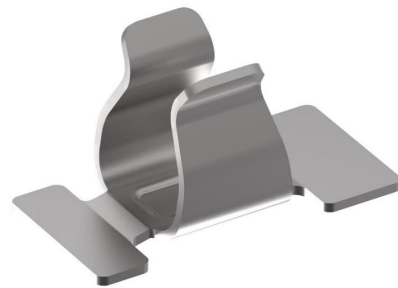


5. U-Shape Spring Connector

The U-shape spring connector is a universal SMD connector often serving the purpose of fixing and grounding a coaxial cable on a PCB. The connector is stamped as a single-piece product and packaged tape-and-reel. The U-shape spring connector prevents the cable from moving, thereby preventing potential functionality problems. The fixation also ensures better resistance to mechanical shock and vibrations. It is very space efficient on the PCB and can be used for fixation of a longer cable or ensuring a stable connection at the end of the coaxial connector, close to the PCB connection pad.

5.1 Features

- Provides retention force preventing cable to move
- Highly reliable and consistent connection
- Cost efficient grounding solution
- Requires limited PCB space
- SMT mounted using standard pick-and-place equipment
- WEEE, RoHS and REACH compliant



5.2 Specifications

Material & Finishes		Environmental	
• Base material:	Copper alloy	• Operating temperature:	-40°C to 85°C
• Plating:	Nickel/Tin	• Humidity:	90% RH @ +40°C

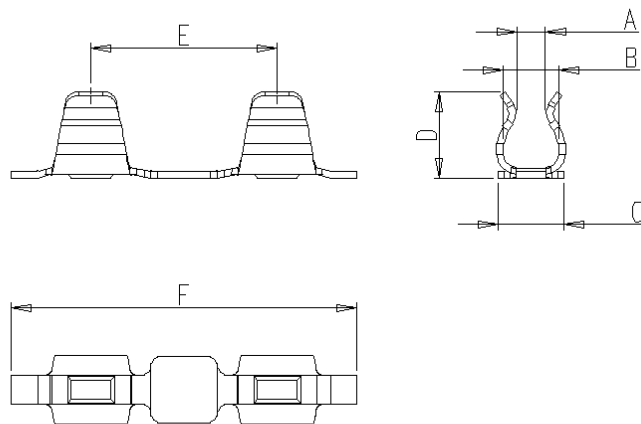
5.3 Applications

Industries	Uses
• Industrial devices and equipment	• Cable grounding
• Medical devices	• Cable fixation and routing
• Consumer electronics	• Connection for simple stacking of PCBs
• Smart home devices	
• White goods	
• Security systems, eg. surveillance cameras	
• Payment systems, eg. PoS devices	

5.4 Part Selection Table

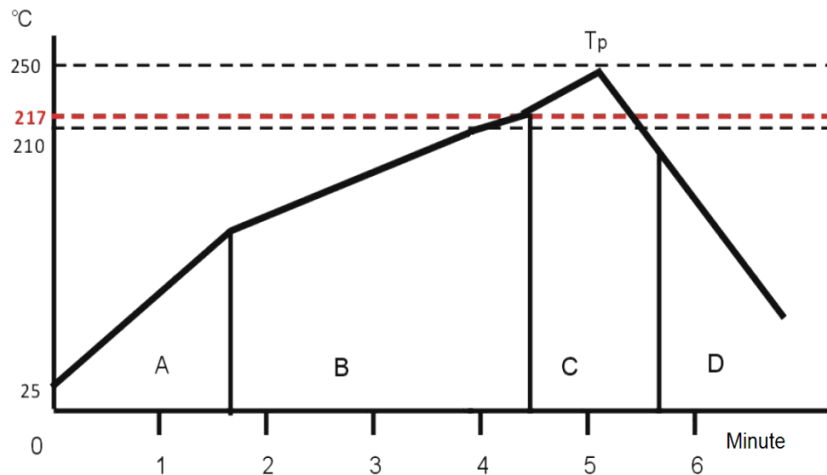
(Unit: mm)

Project	U-Shape02A	U-Shape081A	U-Shape113A	U-Shape137A
Picture				
P/N	1100000801	1100000795	1100000796	1100000798
A	0.43	0.55	0.55	0.75
B	0.84	1.10	1.15	1.40
C (W)	1.00	1.75	1.70	1.70
D (H)	1.28	1.15	1.61	1.78
E	2.80	1.40	N/A	N/A
F (L)	5.20	4.40	3.40	3.40
Recommended Cable Size	Ø0.81	Ø0.81 / 0.85 / 0.95	Ø1.15	Ø1.37
Material	Titanium Copper	Titanium Copper	Titanium Copper	Titanium Copper
PCB Size (L*W)	5.40*1.20	4.60*1.95	3.60*1.90	3.60*1.90
MPQ/Reel Size (k pcs)	9.00	10.00	8.50	8.00



6. Lead-free Soldering

- **Recommended RTS Reflow profile**



The above recommended temperature curve is suitable for SAC305/SAC307 alloy metal. It can also be set as the reference for reflow profile of alloy solder paste. However, users should make their decision according to the requirement of the actual process technology, such as the size, thickness and density of the PCB.

- **Stage A: Preheating**

Heat the PCB and components up to 120-150°C at a recommended rate of 0.5-2°C per second, which can speed up the flux evaporation so as to reduce the heat shock to the components. If it heats up too quickly, solder balling may occur due to the spattering of evaporated flux. Moreover, misalignment and wicking may also occur.

- **Stage B: Flux Activation**

In this stage, the flux need to be activated and the solder on all areas of the board should be roughly the same temperature. Baking for 60-120 s with a recommended temperature of 150-210°C.

- **Stage C: Reflow**

Recommended T_p (peak temperature) is 230-250°C, and reflow duration is 30-90 s. It is necessary to adjust the profile according to the actual process technology.

- **Stage D: Cooling**

Less than 4°C/s is recommended. A fast cooling rate reduces the grains sizes of the intermetallic compounds and strengthens the soldering joints. However, controlled cooling is important to reduce stress on the component body and to minimize warping, which can be achieved by a slow cooling rate depending on oven capabilities (air velocity, placement of heating elements, belt width, etc)

7. Revision History

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 1.0	Sep-2023	First release	-

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