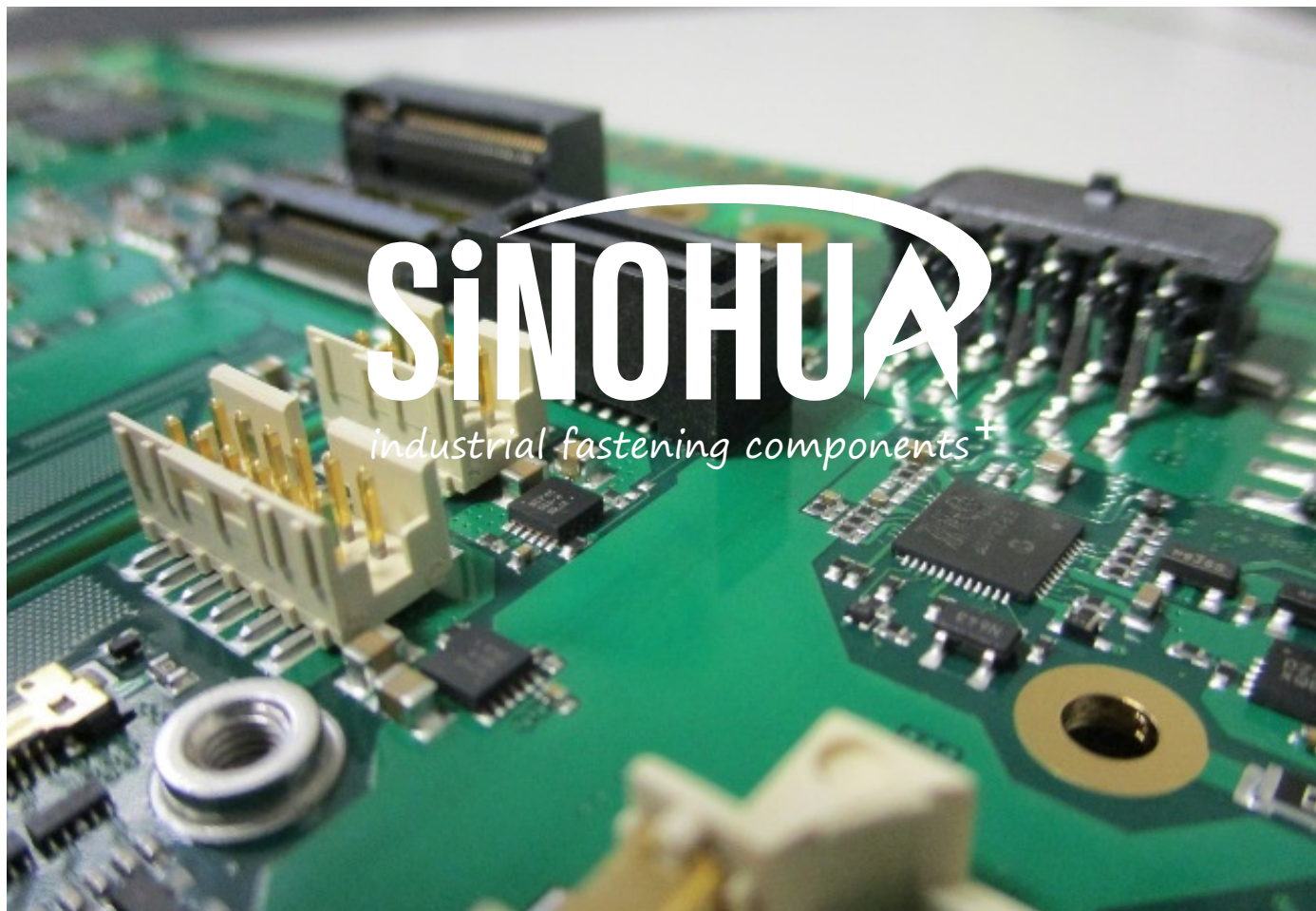




SURFACE MOUNT NUTS

The best solution for SMT/PCB assembly

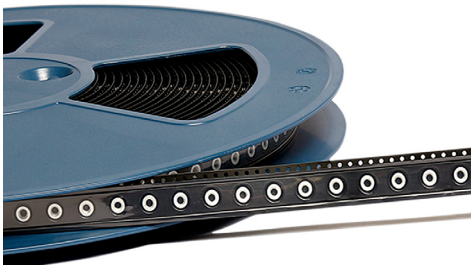
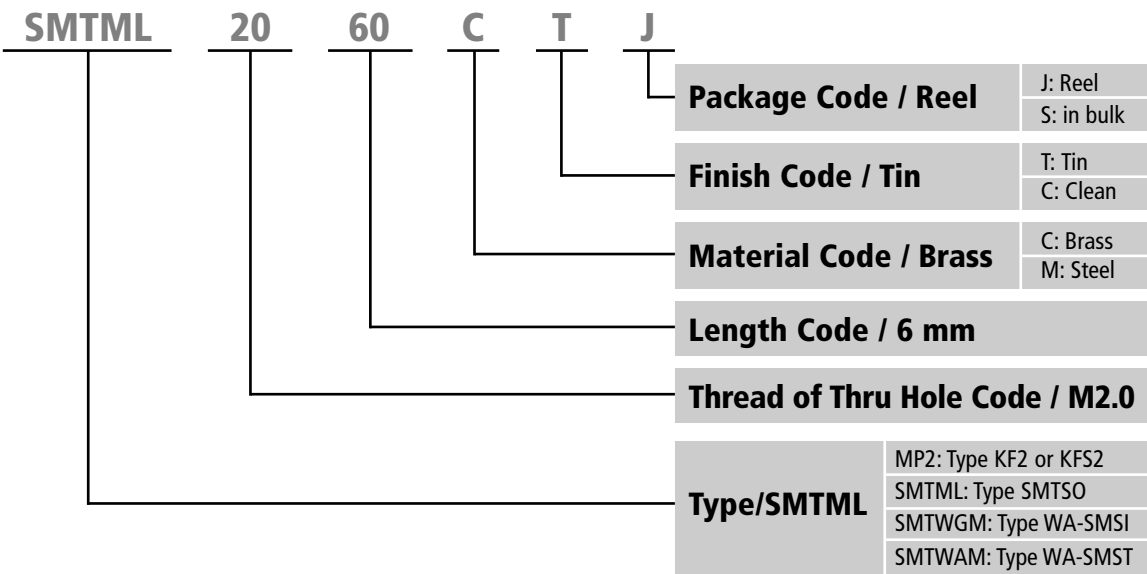


Surface mount nuts and spacers / standoffs

Whether a fan is to be attached to the circuit board or the circuit board itself is built into the housing, you need threaded supports such as nuts or spacers. In most cases these must be installed in a separate operation.

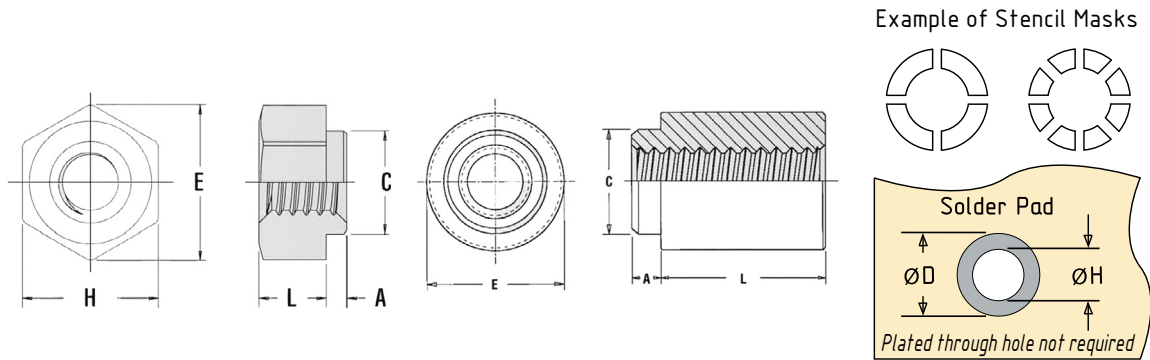
The Sinohua thread mounts are components that have been specially developed for SMT applications. Since the threaded nuts and sockets are supplied in convenient, machine-compliant tape & reel packaging, they can be machine-fitted directly in the assembly process on pads preprinted with solder paste. In the reflow oven, the threaded carrier connects to the circuit board without destroying the circuit board, as might be the case when it is pressed in.

Threaded carriers or sockets can be supplied in various heights and diameters. The basic material is usually steel, but it can also be a copper alloy, tin-plated or nickel-plated surface. ROHS compliant.



Fasteners for use with PC boards

SMTML (Type SMTSO)



All dimensions are in millimeters

Thread Size x Pitch	Thru Hole +0.1-0.08	Type	Thread or Thru Hole Code	Length Code "L"±0.13 (Length code in millimeters)*							Min Sheet Thickness	A Max.	C Max.	E		H Nom.	Ø H Hole Size in Sheet +0.08	Ø D Min. Solder Pad
														Ref.	±0.13			
M1x0,25	—	SMTML	010	1	2	3	—	—	—	—	0,5	0,48	2,41	3,45	—	3	2,5	4,19
M1,2x0,25	—	SMTML	012	1	2	3	—	—	—	—	0,5	0,48	2,41	3,45	—	3	2,5	4,19
M1,4x0,3	—	SMTML	014	1	2	3	—	—	—	—	0,5	0,48	2,41	3,45	—	3	2,5	4,19
M1,6x0,35	—	SMTML	016	1	2	3	—	—	—	—	0,5	0,48	2,41	3,45	—	3	2,5	4,19
M2x0,4	—	SMTML	020	—	2	3	4	6	8	10	1,53	1,53	3,6	—	5,56	—	3,73	6,2
M2,5x0,45	—	SMTML	025	—	2	3	4	6	8	10	1,53	1,53	4,09	—	5,56	—	4,22	6,2
M3x0,5	—	SMTML	030	—	2	3	4	6	8	10	1,53	1,53	4,09	—	5,56	—	4,22	6,2
M3,5x0,6	—	SMTML	035	—	2	3	4	6	8	10	1,53	1,53	5,28	—	7,14	—	5,41	7,77
M4x0,7	—	SMTML	040	—	2	3	4	6	8	10	1,53	1,53	6,22	—	8,74	—	6,35	9,37
—	3,6	SMTML	036	—	2	3	4	6	8	10	1,53	1,53	5,28	—	7,14	—	5,41	7,77
—	4,2	SMTML	042	—	2	3	4	6	8	10	1,53	1,53	6,22	—	8,74	—	6,35	9,37

* - other sizes can be provided under customer's inquiry

Number of parts per reel

Thread/Thru-Hole Size	Length Code							
	1	2	3	4	6	8	10	12
0-80	—	3500	—	2000	—	—	—	—
2-56,4-40,6-32,116,143	—	2000	—	1000	—	700	—	380
8-32	—	1500	—	700	—	500	—	300
M1, M1.2, M1.4, M1.6	3500	2500	2000	—	—	—	—	—
M2, M2.5, M3, M3.5, 3.6	—	2000	1000	1000	700	500	380	—
M4, 4.2	—	1500	1000	700	500	400	300	—

Processing

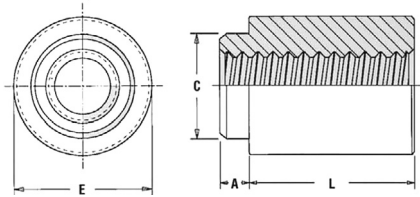
1. With adhesive patch by means of standard vacuum pipette
2. Without adhesive patch by means of special vacuum pipette



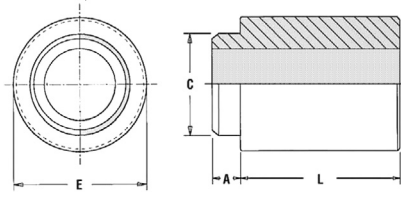
Fasteners for use with PC boards

SMTWGM (Type WA-SMSI) & SMTWAM (Type WA-SMST)

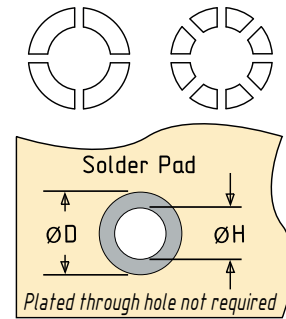
**SMTWGM (Type WA-SMSI)
with Thread**



**SMTWAM (Type WA-SMST)
with Through Hole**



Example of Stencil Masks



All dimensions are in millimeters

Thread Size x Pitch	Type	Thread Code	Length Code "L" ±0,13 (Length code in millimeters)*																	A ±0.10	C ±0.10	E ±0.10	Ø H Hole Size In Sheet +0.08	Ø D Min. Solder Pad		
M2x0,4	SMTWGM	M2	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8	—	—	—	—	—	—	—	1,4	2,8	4,35	3	5,3
M2,5x0,45	SMTWGM	M2,5	1	1,5	2	2,5	3	—	4	—	5	6	7	8	9	10	—	—	—	—	—	1,4	3,5	5,1	3,7	6
M3x0,5	SMTWGM	M3	1	1,5	2	2,5	3	—	4	—	5	6	7	8	9	10	11	12	13	14	15	1,4	4,2	6	4,4	7,4
M4x0,7	SMTWGM	M4	1	—	2	—	3	—	4	—	5	6	7	8	9	10	—	—	—	—	—	1,4	5,2	8,2	5,4	9,4

Thru-Hole Size	Type	Thru-Hole Code	Length Code "L"±0,13 (Length code in millimeters)*																		A ±0.10	C ±0.10	E ±0.10	Ø H Hole Size In Sheet +0.08	Ø D Min. Solder Pad	
2,25	SMTWAM	2,25	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8	—	—	—	—	—	—	—	1,4	2,8	4,35	3	5,3
2,7	SMTWAM	2,7	1	1,5	2	2,5	3	—	4	—	5	6	7	8	9	10	—	—	—	—	—	1,4	3,5	5,1	3,7	6
3,3	SMTWAM	3,3	1	1,5	2	2,5	3	—	4	—	5	6	7	8	9	10	11	12	13	14	15	1,4	4,2	6	4,4	7,4
4,5	SMTWAM	4,5	1	—	2	—	3	—	4	—	5	6	7	8	9	10	—	—	—	—	—	1,4	5,2	8,2	5,4	9,4

* - other sizes can be provided under customer's inquiry

Number of parts per reel

Thread/ Thru-Hole Size	Length Code																		
	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8	9	10	11	12	13	14	15
M 2/2.25	2500	2000	2000	1600	1600	900	900	900	800	700	600	500	—	—	—	—	—	—	—
M 2.5/2.7	2000	1500	1500	1000	1000	1000	1000	800	800	700	600	500	500	500	—	—	—	—	—
M 3/3.3	2000	1200	1200	1000	1000	1000	1000	800	800	700	600	500	500	300	300	300	250	220	200
M 4/4.5	1500	—	1000	—	800	—	700	—	500	500	400	400	300	300	—	—	—	—	—

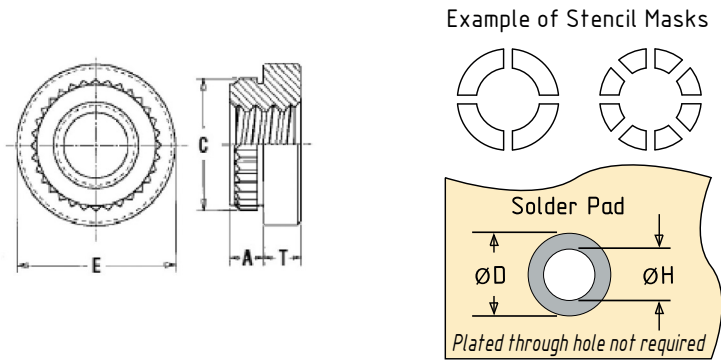
Processing

1. With adhesive patch by means of standard vacuum pipette
2. Without adhesive patch by means of special vacuum pipette



Fasteners for use with PC boards

MP2 (Types KF2 & KFS2)



All dimensions are in millimeters

Thread Size x Pitch	Type	Thread Code	A (Shank) Max.	Min. Sheet Thickness	H in PC board +0,01	C ±0,08	E ±0,13	T* ±0,13	D min	Number of parts per reel
M2 x 0,4	MP2	M2	1,53	1,53	4,3	4,19	5,56	1,5	6,2	1500
M2.5x0,45	MP2	M2,5	1,53	1,53	4,8	4,68	5,56	1,5	6,2	1500
M3 x 0,5	MP2	M3	1,53	1,53	4,8	4,68	5,56	1,5	6,2	1500
M4 x 0,7	MP2	M4	1,53	1,53	7	6,86	8,74	2	9,4	900
M5 x 0,8	MP2	M5	1,53	1,53	7,5	7,37	9,53	3	10,3	800

* - other sizes can be provided under customer's inquiry

Type MP2 broaching and broach/flare mount fasternes

Type	Thread Code	Max. Nut Tightening Torque (N•m)	Test Sheet Thickness & Test Sheet Material	Installation (kN)	Pushout (N) (2)	Torque-out (N•m)
MP2	M2/2.5/3	(3)	1.5 mm FR-4 Fiberglass	2.2	290	1.7
	M4	(3)	1.5 mm FR-4 Fiberglass	2.2	420	3.4
	M5	(3)	1.5 mm FR-4 Fiberglass	2.9	440	4.5

(1) The values reported are averages when all installation specifications and procedures are followed. Variations in mounting hole size, sheet material, and installation procedure will affect this data. Performance testing of this product in your application is recommended. We will be happy to provide samples for this purpose or perform the installation for you.

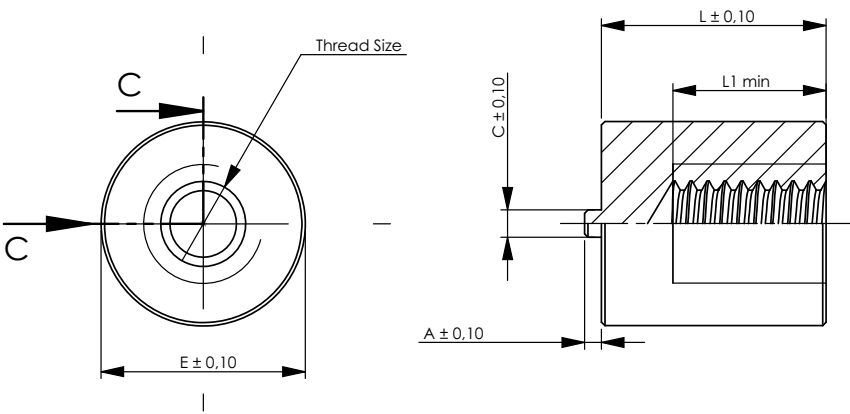
(2) These are typical values for parts installed in drilled mounting holes. Punched mounting holes yield values approximately 15% less.

(3) Not applicable.

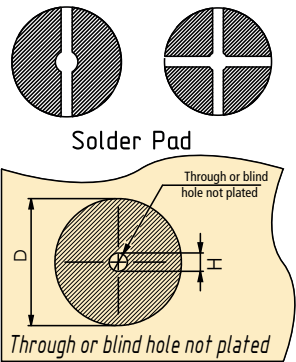
Processing

- 1. With adhesive patch by means of standard vacuum pipette
- 2. Without adhesive patch by means of special vacuum pipette





Example of Stencil Masks



Thread Size x Pitch	Type	Thread Code	Length Code "L" ±0,10 (Length code in millimeters)*												A ±0.10	C ±0.10	E ±0.10	L1 ±0.10	Ø H Hole Size In Sheet +0.08	Ø D Min. Solder Pad
M2x0,4	SMTSLM	M2	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	0,5	0,8	4,35	3	1	5,3	
M3x0,5	SMTSLM	M3	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	0,5	0,8	6	3	1	7,4	
M4x0,7	SMTSLM	M4	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	0,6	1	7	3-4	1,2	8,3	

* - other sizes can be provided under customer's inquiry

Number of parts per reel

Thread Size x Pitch	Length Code										
	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10
M2x0,4	900	800	750	700	650	600	600	600	500	500	500
M3x0,5	900	800	750	700	650	600	600	600	500	500	500
M4x0,7	600	600	550	550	450	450	400	400	350	350	350

Processing

- 1. With adhesive patch by means of standard vacuum pipette
- 2. Without adhesive patch by means of special vacuum pipette

