

**重要提醒** (下列条件适用于 SMD 产品系列内的所有零件):

- 请参照技术手册中的建议设计电路板。
- 必须根据回流焊/波峰焊技术规范选择合格的焊料，严格控制焊接温度、时间。
- 焊接工艺会导致产品表面变色。
- 爬锡现象会导致内孔堵塞，因此通孔产品不适用波峰焊，建议采用回流焊。
- 所有产品应在出厂 12 个月内使用，超出有效期会影响可焊性。
- 必须在密封、干燥环境下保存。
- 零件与 PCB 的连接强度由产品、焊盘、焊接效果等因素综合决定
- 必须控制最大锁附扭力，防止元件和 PCB 受到机械破坏。
- 工作电流由 PCB、电缆接头、电缆横截面等因素综合决定。
- 手册中如有标注参考电流，零件使用材料为黄铜 **C3604(H59)**



### Cautions and Warnings:

The following conditions apply to all goods within the product series of Sinhoo PCB SMD

General:

All recommendations according to the general technical specifications of the data-sheet have to be complied with.

The responsibility for the applicability of customer specific products and use in a particular customer design is always within the authority of the customer. All technical specifications for standard products do also apply for customer specific products.

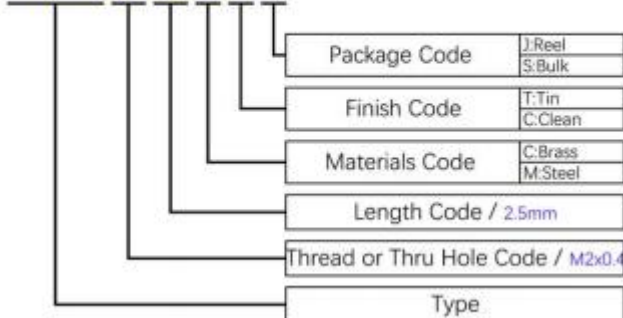
Product Specific:

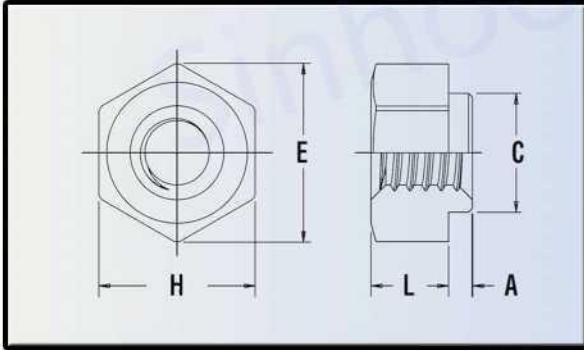
Follow all instructions in the datasheet, especially:

- The solder profile has to be complied with according to the technical reflow soldering specification, otherwise no warranty will be sustained.
- Surface discoloration due to reflow processing is permitted.
- Wave soldering is not applicable. Reflow soldering is recommended.
- All products shall be used before the end of the period of 12 months based on the product date-code, if not a 100% solderability can't be ensured.
- The maximum permissible torques must be complied with to prevent mechanical destruction of the elements and PCB.
- Operating current depends on PCB, cable lug and cross section of the cable.
- The connection strength between parts and PCB is determined by product, pad and welding effect
- If the operating current is marked in the manual, the material used for the parts is brass C3604(H59)

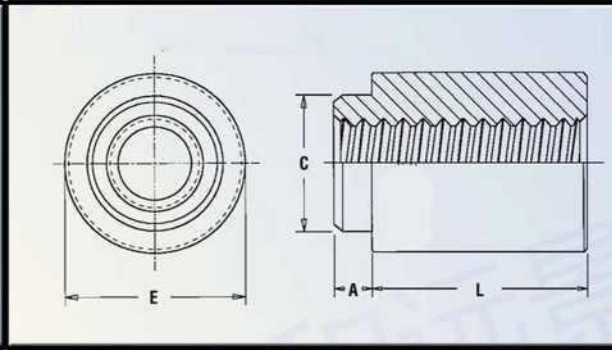
### PART NUMBER DESIGNATION

SMTSO 20 25 C T J

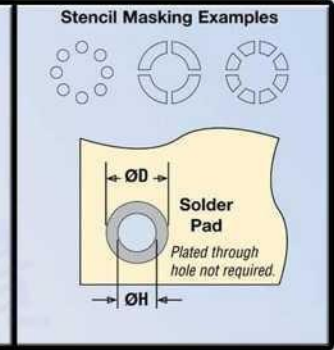




Thread sizes 080, S1, S1.2, S1.4 and M1.6



Thread/thru hole sizes M2, M. 5, M3, M3. 5, M4, 3. 6, 4. 2



All dimensions are in millimeters.

Thread Size x Pitch	Thru Hole +0.10 -0.08	Type	Thread or Thru Hole Code	Length Code "L" $\pm 0.13$ (Length code in millimeters)																	Min. Sheet Thickness	A Max.	C Max.	E Ref. $\pm 0.13$	H Nom.	Hole Size In Sheet +0.08	OD Min. Solder Pad	Rated Current (A)	Tightening Torque (Kgf.cm)									
				0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10										11	12	13	15	18	20	25	30	
M 1x0.25	—	SMTSO	10	0.5	1	1.5	2	2.5	3										0.5	0.48	2.41	3.66	—	3.18	2.5	4.19	15	0.3										
M1.2x0.25	—	SMTSO	12	0.5	1	1.5	2	2.5	3										0.5	0.48	2.41	3.66	—	3.18	2.5	4.19	15	0.6										
M1.4x0.3	—	SMTSO	14	0.5	1	1.5	2	2.5	3										0.5	0.48	2.41	3.66	—	3.18	2.5	4.19	15	1										
M1.6x0.35	—	SMTSO	16	0.5	1	1.5	2	2.5	3										0.5	0.48	2.41	3.66	—	3.18	2.5	4.19	15	1.5										
M2x0.4	—	SMTSO	20	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10	11	12	13	15	18	20	25	30	1.53	1.53	3.6	—	5.56	—	3.73	6.2	30	1.5
M2.5x0.45	—	SMTSO	25	—	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10	11	12	13	15	18	20	25	30	1.53	1.53	4.09	—	5.56	—	4.22	6.2	30	3
M3x0.5	—	SMTSO	30	—	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10	11	12	13	15	18	20	25	30	1.53	1.53	4.09	—	5.56	—	4.22	6.2	30	5
M3.5x0.6	—	SMTSO	35	—	—	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10	11	12	13	15	18	20	25	30	1.53	1.53	5.28	—	7.14	—	5.41	7.77	40	6
M4x0.7	—	SMTSO	40	—	—	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10	11	12	13	15	18	20	25	30	1.53	1.53	6.22	—	8.74	—	6.35	9.37	50	8
—	3.2	SMTSO	32	—	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10									1.53	1.53	4.09	—	5.56	—	4.22	6.2	20	—
—	3.6	SMTSO	36	—	—	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10									1.53	1.53	5.28	—	7.14	—	5.41	7.77	30	—
—	4.2	SMTSO	42	—	—	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8	9	10									1.53	1.53	6.22	—	8.74	—	6.35	9.37	40	—

\*更多"L"尺寸未列在表中, 请略我们确认! MORE "L" SIZES ARE NOT LISTED IN THE TABLE, PLEASE CONTACT US FOR CONFIRMATIO

Thread sizes 080, S1, S1.2, S1.4 and M1.6

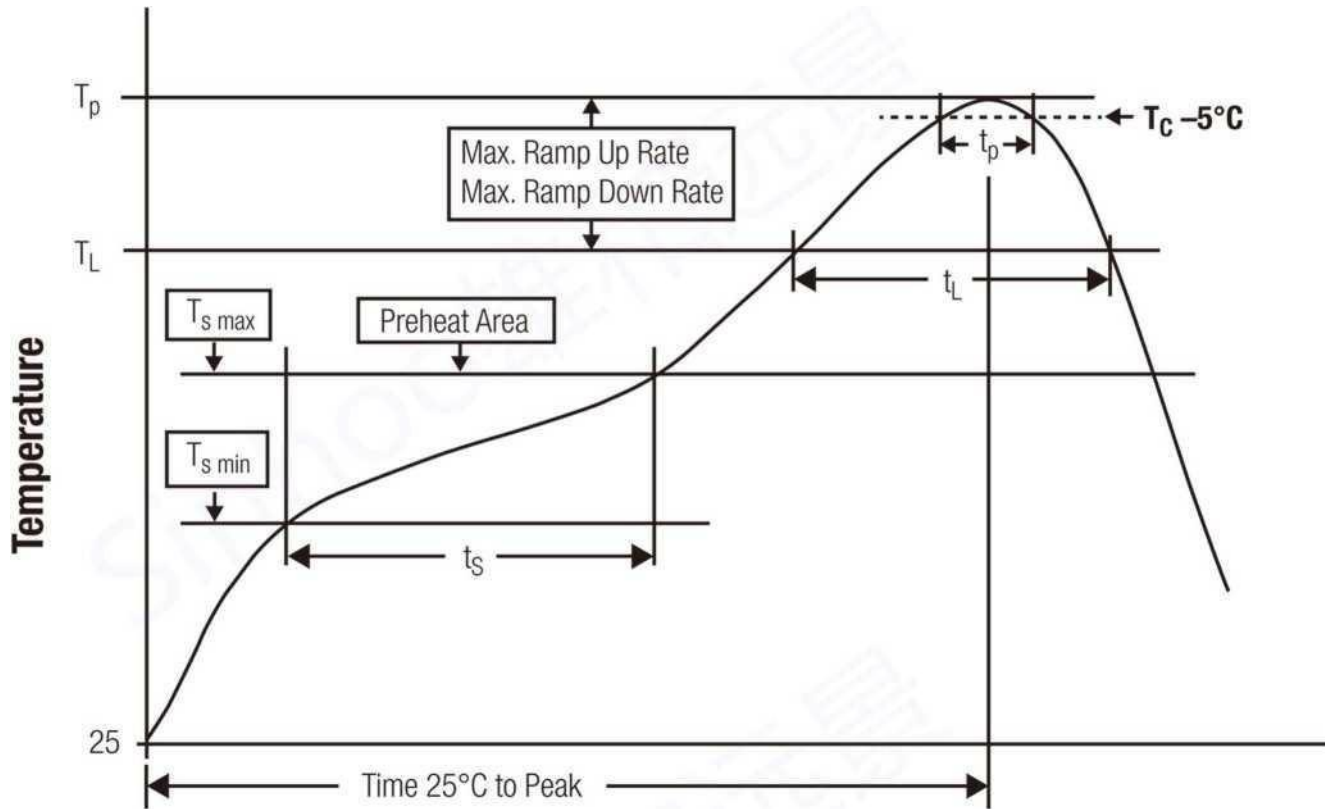
Thread/thru hole sizes M2, M. 5, M3, M3. 5, M4, 3. 6, 4. 2

2-56, 4-40, 6-32, 8-32, 116 and 143

All dimensions are in inches.

Thread Size	Thru Hole +.004 -.003	Type	Thread or Thru Hole Code	Length Code "L" $\pm 0.005$ (Length code in 32nds of an inch)							Min. Sheet Thickness	A Max.	C Max.	E		H Nom.	OH Hole Size In Sheet +.003-.000	OD Min. Solder Pad	Rated Current (A)	Tightening Torque (Kgf.cm)
				Ref.	$\pm 0.005$															
.060-80 (#0-80)	—	SMTSO	080	.062	.125	—	—	—	—	.020	.019	.095	.144	—	.125	.098	.165	15	1.5	
.086-56 (#2-56)	—	SMTSO	256	.062	.125	.187	.250	.312	.375	.060	.060	.142	—	.219	—	.147	.244	30	1.5	
.112-40 (#4-40)	—	SMTSO	440	.062	.125	.187	.250	.312	.375	.060	.060	.161	—	.219	—	.166	.244	30	5	
.060-80 (#6-32)	—	SMTSO	632	.062	.125	.187	.250	.312	.375	.060	.060	.208	—	.281	—	.213	.306	40	6	
.164-32 (#8-32)	—	SMTSO	832	.062	.125	.187	.250	.312	.375	.060	.060	.245	—	.344	—	.250	.369	50	8	
—	.116	SMTSO	116	.062	.125	.187	.250	.312	.375	.060	.060	.161	—	.219	—	.166	.244	30	—	
—	.143	SMTSO	143	.062	.125	.187	.250	.312	.375	.060	.060	.208	—	.281	—	.213	.306	40	—	

All dimensions are in inches.



**Classification Reflow Profile for SMT components:**

**Classification Reflow Soldering Profile:**

Profile Feature		Value
Preheat Temperature Min ( )	L min	150 °C
Preheat Temperature Max	Ts max	200 °C
Preheat Time <i>t<sub>s</sub></i> from T <sub>s min</sub> to T <sub>s max</sub>	t <sub>s</sub>	60-120 seconds
Ramp-up Rate (T <sub>L</sub> to T <sub>p</sub> )		3 °C/ second max.
Liquidous Temperature	T <sub>L</sub>	217 °C
Time <i>t<sub>L</sub></i> maintained above T <sub>L</sub>	t <sub>L</sub>	60-150 seconds
Peak package body temperature		see table
Time within 5°C of actual peak temperature	t <sub>p</sub>	20 - 30 seconds
Ramp-down Rate (T <sub>L</sub> to T <sub>p</sub> )		6 °C/ second max.
Time 25°C to peak temperature		8 minutes max.

**Package Classification Reflow Temperature:**

**Time**

Properties	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> 350-2000	Volume mm <sup>3</sup> >2000
PB-Free Assembly I Package Thickness < 1.6 mm	260 °C	260 °C	260 °C
PB-Free Assembly I Package Thickness 1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
PB-Free Assembly I Package Thickness > 2.5 mm	250 °C	245 °C	245 °C

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