

SMT TYPE FASTENER

COMPELMA has developed lots of SMT type standoff, spacer, and nut for client option, which is taping and reel package instead of traditional fastener, not only save the design and cost of assembly but also decrease more labor power, especially easy to design in tiny and slim type electronic product by designer.

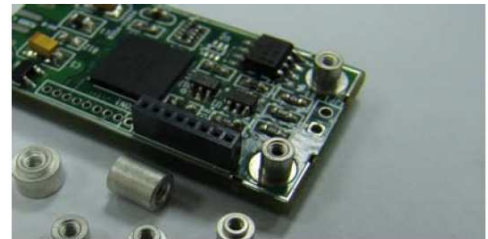
FEATURES

- Material: Brass / Carbon steel
- Electroplated: Tin / Au Plated
- Package: Taping & Reel packing / Bulk type packing
- Kapton tape attached to the hole of SMT Fastener for SMT Nozzle pick and place



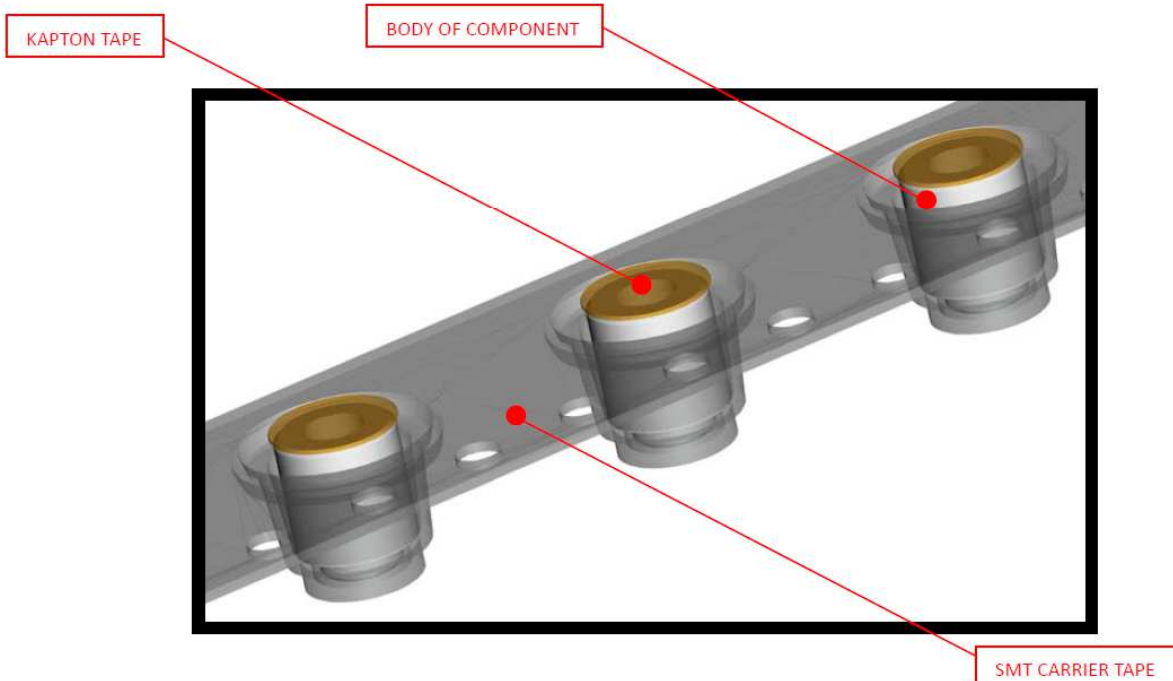
BENEFITS

- Easy to assembly
- Fastener mass production
- Save labor power
- Precision position on PCB
- Easy to design for tiny and slim product
- Reduced weakness condition of PCB


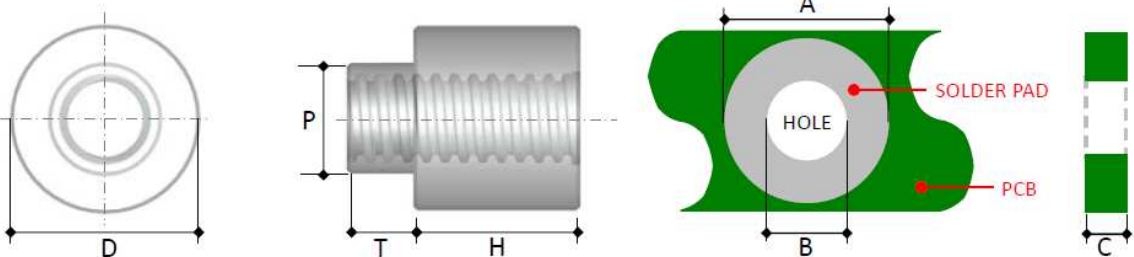


PART NUMBER DEFINITION

A TYPE	B1 B2 B3 HEIGHT(ABOVE PCB)	C1 C2 DIAMETER (MAX)	D1 D2 THREAD SIZE	E THREAD TYPE	E ELECTROPLATED
N : NUT S : STANDOFF & SPACER	40 : 4.0mm 120 : 12.0mm	40 : 4.0mm 70 : 7.0mm	25 : M2.5 20 : M2.0 16 : M1.6 30 : M3.0 40 : M4.0	A : THROUGH HOLE WITH THREAD C : THROUGH HOLE WITHOUT THREAD OR NO HOLE	NULL : Sn G : Au



STANDARD (With Positioner): METRIC UNIT: mm

Photo	Diagram											
												
Thread Size	Part No.	D Max Dia	P Thr PCB Dia	T Thr PCB Deph	H Height above PCB	A Solder Pad Dia	B Hole Dia	C PCB Thickness	Material	Current Capacity (A)	Torque (Kgf-cm)	Plated
M1.2 x 0.25P	N0092512A	2.50	2.00	1.00	0.90	2.50	2.20	≥1.10	Brass	10A	0.60	Sn
M1.6 x 0.35P	N0093516A	3.50	2.40	0.85	0.90	3.50	2.60	≥0.90	Brass	10A	1.00	Sn
	N0143416A	3.40	2.20	0.80	1.40	3.40	2.40	≥0.90	Brass	10A	1.00	Sn
	N0213416A	3.40	2.30	0.50	2.10	3.40	2.50	≥0.90	Brass	10A	1.00	Sn
	N0303216A	3.20	2.20	0.80	3.00	3.20	2.40	≥0.90	Brass	12A	1.00	Sn
M1.8 x 0.35P	N0323018A	3.00	2.40	0.90	3.15	3.00	2.60	≥0.90	Brass	12A	0.60	Sn
	N0343018A	3.00	2.40	0.90	3.35	3.00	2.60	≥1.00	Brass	10A	0.60	Sn
M2.0 x 0.40P	N0103620A	3.60	2.90	1.00	1.00	3.60	3.10	≥1.10	Brass	10A	1.20	Sn
	N0103620A1	3.60	2.90	2.55	1.00	3.60	3.10	NA	Brass	10A	0.60	Sn
	N0105020A	5.00	3.90	3.10	1.00	5.00	4.00	NA	Brass	10A	1.20	Sn
	N0144520A1	4.50	2.80	1.60	1.40	4.50	3.00	≥1.60	Brass	10A	1.20	Sn
	N0144720A	4.70	3.00	0.95	1.40	4.70	3.30	≥1.00	Brass	10A	1.20	Sn
	N0155220A	5.20	4.00	1.00	1.50	5.20	4.20	≥1.00	Brass	10A	1.50	Sn
	N0195020A	5.00	2.90	1.00	1.90	5.00	3.10	≥1.00	Brass	10A	1.50	Sn
	N0205020A	5.00	3.60	1.00	2.00	5.00	3.80	≥1.00	Brass	10A	1.20	Sn
	N0215020A	5.00	2.90	1.15	2.10	5.00	3.10	≥1.20	Brass	10A	2.00	Sn
	N0254520A	4.50	3.20	1.20	2.50	4.50	3.40	≥1.20	Brass	10A	1.50	Sn
	N0304020A	4.00	2.70	0.90	3.00	4.00	2.90	≥1.00	Brass	12A	1.50	Sn
	S0354020A	4.00	2.90	1.10	3.50	4.00	3.10	≥1.20	Brass	12A	1.50	Sn
	S0435020A	5.00	2.90	3.10	4.30	5.00	3.10	NA	Brass	15A	2.00	Sn
	S0474020A	4.00	2.90	1.10	4.70	4.00	3.10	≥1.20	Brass	15A	1.50	Sn
	S0504020A	4.00	2.90	1.50	5.00	4.00	3.10	≥1.60	Brass	15A	1.50	Sn
	N0554020A	4.00	2.70	0.90	5.50	4.00	2.90	≥1.00	Brass	15A	1.50	Sn
	S0563920A	3.90	2.90	1.20	5.60	5.00	3.10	≥1.20	Brass	15A	2.00	Sn
	N0604020A	4.00	2.50	1.50	6.00	4.00	2.70	≥1.60	Brass	15A	1.50	Sn
	S0635020A	5.00	3.90	1.20	6.30	5.00	4.10	≥1.20	Brass	18A	1.20	Sn
N0654020A	4.00	2.90	1.60	6.50	4.00	3.10	≥1.60	Brass	15A	1.50	Sn	
N0804020A	4.00	2.90	1.60	8.00	4.00	3.10	≥1.60	Brass	15A	1.50	Sn	
N0903520A	3.50	2.50	1.50	9.00	3.50	2.70	≥1.60	Brass	15A	1.00	Sn	
M2.5 x 0.45P	N0055025A	5.00	2.90	1.20	0.50	5.00	3.10	≥1.20	Brass	10A	2.00	Sn
	N0105525A	5.56	4.05	2.60	1.00	6.00	4.15	NA	Carbon steel	10A	3.00	Sn
	N0126025A	6.00	4.00	0.90	1.20	6.00	4.20	≥1.00	Brass	10A	3.00	Sn
	N0205025A	5.00	3.60	1.10	2.00	5.00	3.80	≥1.20	Brass	10A	1.20	Sn
	N0235025A	5.00	3.40	1.15	2.30	5.00	3.60	≥1.20	Brass	10A	1.50	Sn
	S0305025A	5.00	3.60	1.00	3.00	5.00	3.80	≥1.00	Brass	12A	1.20	Sn
	N0325025A	5.00	3.90	1.20	3.15	5.00	4.10	≥1.20	Brass	15A	1.20	Sn
	S0405025A	5.00	3.60	1.10	4.00	5.00	3.80	≥1.20	Brass	15A	1.20	Sn
	N0406025A	6.00	4.00	1.10	4.00	6.00	4.20	≥1.20	Brass	15A	3.00	Sn
	S0454525A	4.50	3.40	1.10	4.50	4.50	3.60	≥1.20	Brass	15A	1.00	Sn
	N0465025A	5.00	4.00	1.20	4.60	5.00	4.20	≥1.20	Brass	15A	1.20	Sn
	S0465025A	5.00	3.90	1.10	4.60	5.00	4.10	≥1.20	Brass	15A	1.20	Sn
	S0495025A	5.00	3.60	1.20	4.90	4.00	3.10	≥1.20	Brass	15A	1.50	Sn
	N0526025A	6.00	4.00	1.10	5.20	6.00	4.20	≥1.20	Brass	15A	3.00	Sn
	S0555025A	5.00	3.60	1.20	5.50	5.00	3.80	≥1.20	Brass	18A	1.20	Sn
	N0565025A	5.00	4.00	1.10	5.60	5.00	4.20	≥1.20	Brass	18A	1.20	Sn
	S0674525A	4.50	3.50	1.10	6.65	4.50	3.70	≥1.20	Brass	18A	1.20	Sn
	S0705525A	5.56	4.09	1.53	7.00	6.20	4.22	≥1.60	Carbon Steel	18A	3.00	Sn
	S0853925A	3.90	2.90	1.20	8.50	3.90	3.10	≥1.20	Brass	15A	0.60	Sn
	S1005525A	5.56	4.09	1.53	10.00	6.20	4.22	≥1.60	Brass	20A	3.00	Sn

M3.0 x 0.5P	N0105530A	5.56	4.05	2.00	1.00	5.50	4.15	NA	Carbon Steel	10A	2.50	Sn
	N0325530A	5.56	4.09	1.52	3.175	6.20	4.22	≥1.60	Carbon Steel	10A	3.00	Sn
	N0405030A	5.00	3.60	1.50	4.00	5.00	3.80	≥1.60	Brass	15A	1.20	Sn
	S0415530A	5.50	4.00	1.00	4.00	5.50	4.20	≥1.20	Brass	15A	1.50	Sn
	S0426030A	6.00	4.50	1.50	4.20	6.00	4.70	≥1.60	Brass	15A	2.50	Sn
	S0755530A	5.50	4.10	1.40	7.50	5.50	4.22	≥1.60	Brass	18A	1.50	Sn
	S0805530A2	5.50	4.10	0.80	8.00	5.50	4.22	≥0.90	Brass	20A	1.50	Sn
	S0805530A3	5.50	4.10	1.40	8.00	5.50	4.22	≥1.60	Brass	20A	1.50	Sn
	N0825530A	5.50	4.00	1.25	8.20	5.50	4.10	≥1.60	Brass	20A	2.00	Sn
	S1005530A1	5.50	4.00	1.20	10.00	5.50	4.20	≥1.20	Carbon Steel	20A	1.50	Sn
	N1105030A	5.00	3.60	1.50	11.00	5.00	3.80	≥1.60	Brass	20A	1.20	Sn
S1205530A	5.50	4.00	1.50	12.00	5.50	4.20	≥1.60	Brass	25A	1.50	Sn	
S1206030A	6.00	4.50	1.50	12.00	6.00	4.70	≥1.60	Brass	25A	2.50	Sn	
M3.5 x 0.6P	N0327135A	7.14	4.50	1.10	3.18	7.14	4.70	≥1.20	Brass	10A	4.00	Sn

SMT PACKING INFORMATION

* The Kapton tape is attached to the top hole of SMT fastener for SMT nozzle pick and place process
 * 7" or 13" plastic disk

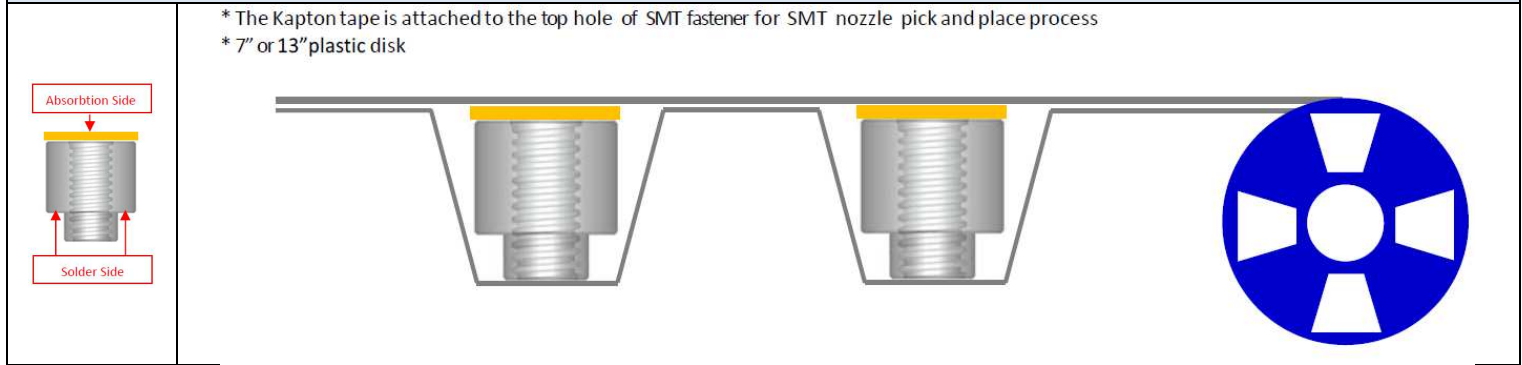
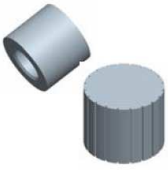
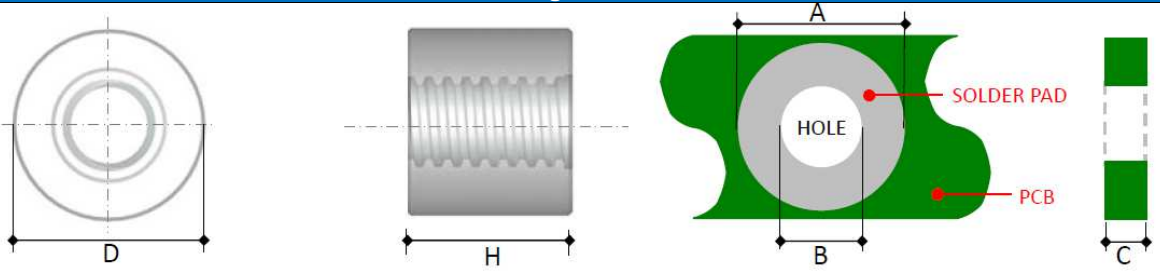
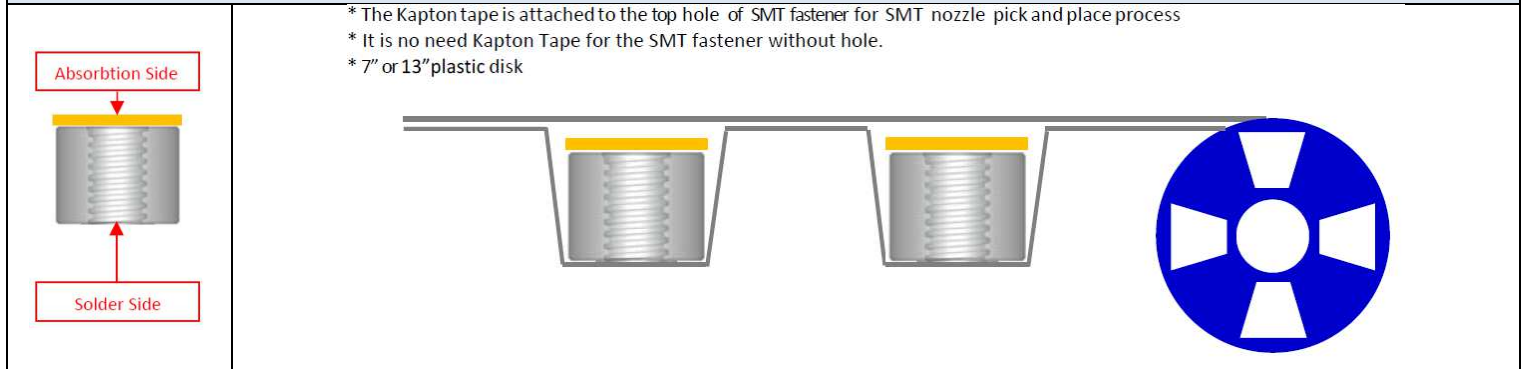

STANDARD (Without Positioner): METRIC UNIT: mm

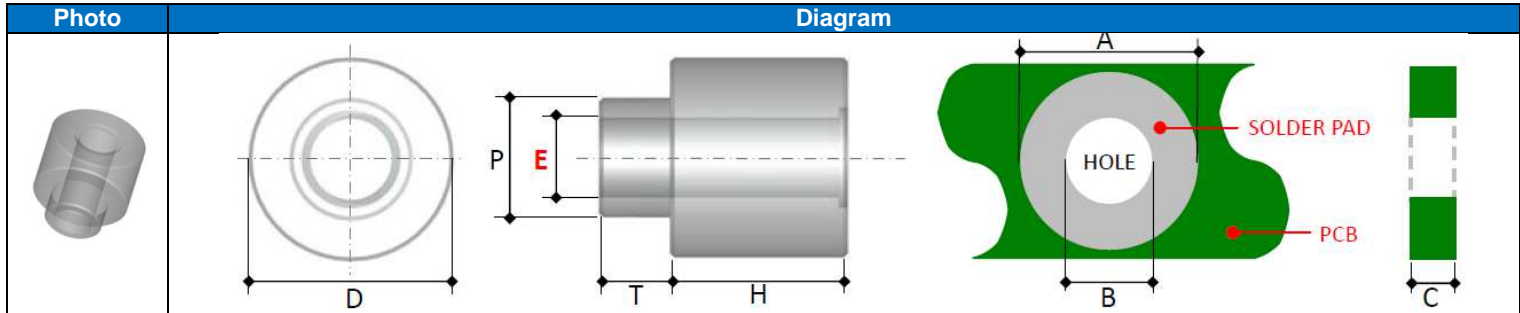
Photo		Diagram								
										
Thread Size	Part No.	D Max Dia	H Height above PCB	A Solder Pad Dia	B Hole Dia	C PCB Thickness	Material	Current Capacity (A)	Torque (Kgf-cm)	Plated
M1.2 x 0.25P	N0313012A	3.00	3.10	3.00	1.40	NA	Brass	10A	2.00	Sn
M1.6 x 0.35P	N0153416A	3.40	1.50	3.40	1.80	NA	Brass	5A	2.00	Sn
NO HOLE	S0334040C	4.00	3.30	5.00	0.00	NA	Brass	30A	4.00	Sn

SMT PACKING INFORMATION

* The Kapton tape is attached to the top hole of SMT fastener for SMT nozzle pick and place process
 * It is no need Kapton Tape for the SMT fastener without hole.
 * 7" or 13" plastic disk



STANDARD (Through hole without Thread): METRIC UNIT: mm

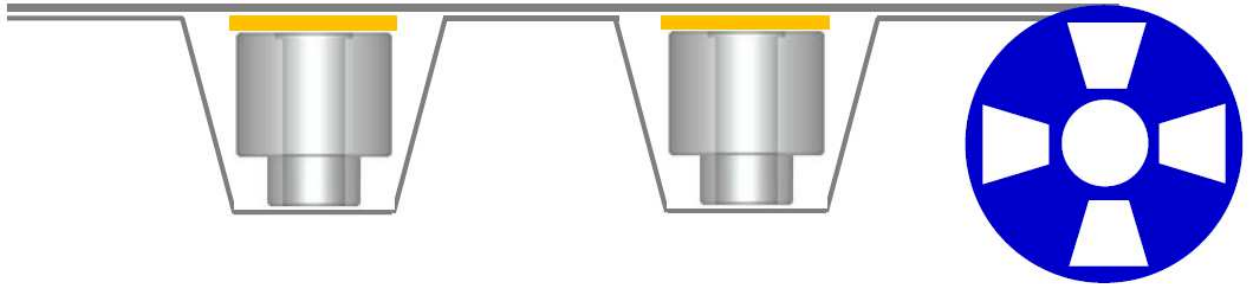
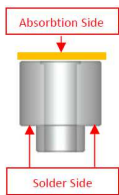


HOLE Dia (E)	Part No.	D Max Dia	P Thr PCB Dia	T Thr PCB Deph	H Height above PCB	A Solder Pad Dia	B Hole Dia	C PCB Thickness	Material	Current Capacity (A)	Torque (Kgf-cm)	Plated
2.50	S0204525C	2.00	3.50	2.35	2.00	5.14	3.63	≥3.00	Brass	10A	1.50	Sn
3.50	N0237035C	7.00	4.50	1.25	2.35	7.00	4.60	≥1.60	Brass	10A	5.00	Sn
3.75	N0237037C	7.00	4.75	1.25	2.35	7.00	4.85	≥1.60	Brass	10A	5.00	Sn
2.20	N0304522C	4.50	3.53	0.80	3.00	4.50	3.60	≥0.90	Brass	10A	1.00	Sn
2.60	N0304526C	4.50	3.53	0.80	3.00	4.50	3.60	≥0.90	Brass	10A	1.00	Sn
3.00	S0426030C	6.00	4.50	1.50	4.20	6.00	4.70	≥1.60	Brass	20A	2.50	Sn
2.70	S0505527C	5.50	4.00	1.50	5.00	5.50	4.20	≥1.60	Carbon Steel	10A	1.50	Sn

STM PACKING INFORMATION

* The Kapton tape is attached to the top hole of SMT fastener for SMT nozzle pick and place process

* 7" or 13" plastic disk



Note:

1. Standard parts and customized design project are all welcomed!
2. The lead time of prototyping sample will be about 1~2 weeks not including SMT carrier tape.
3. Electroplated is available for user option: Sn / Au.

TYPICAL PROPERTIES

QUALITY EXAMINATION:

1. Vision Examination: without serious damage and scratch line with will influence the solderability.
2. Dimension Measurement: measure per the drawing individual.

MATERIAL:

1. Brass: C3604
2. Carbon Steel: 12L14

ELECTROPLATED:

1. Sn: 2-3 um over Ni 2.5um plating.
2. Au: 0.025-0.075um over Ni 2.5um plating. (Optional)

OPERATION TEMP:

-40°C~+150°C

RECOMMEND SOLDER PAD AREA:

Please refer to the drawing individual

KAPTON TAPE:

UL94-V0 Certification

RECOMMEND TEMPERATURE PROFILE:

Pre-heat: 150°C ± 10°C

-Note 1:

The initial temp shall be at 130°C~160°C (60~120sec) and the end of preheating temp shall be 140°C~180°C

-Note 2:

The soldering conditions may be bad when the preheating time under 60sec and over 120sec, solder oxidation may be accelerated, then above range is recommended.

Peak temperature

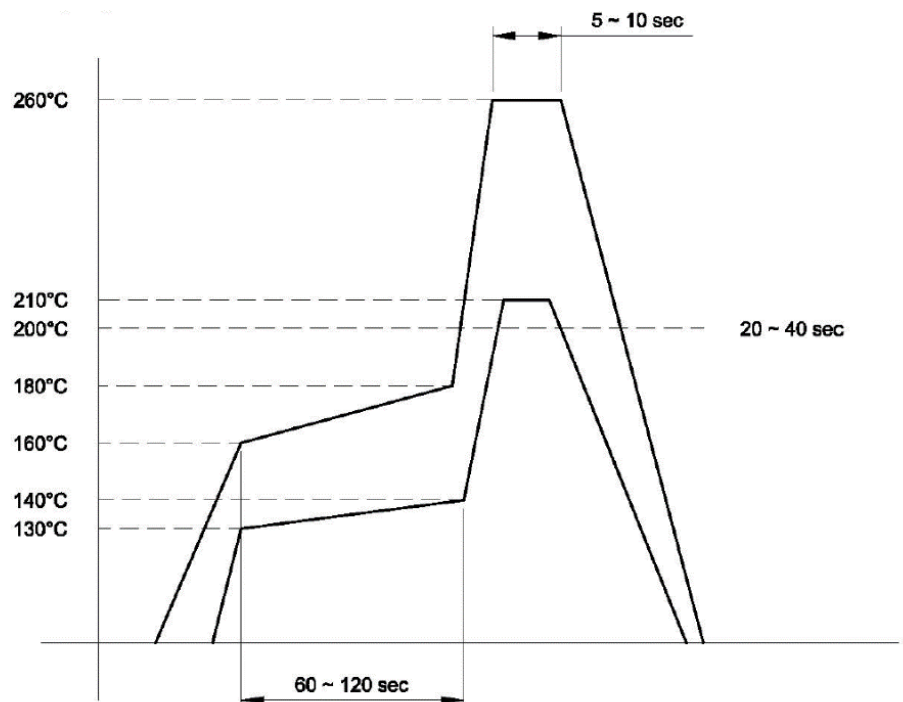
210°C~260°C (5~10sec)

200°C (20~40sec)

Temperature up speed

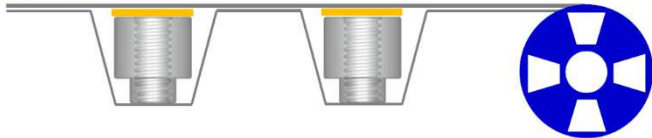
1~5°C / sec

Conveyor speed: about 0.7m/min

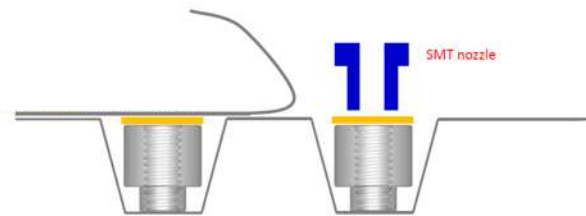


ASSEMBLY PROCESS:

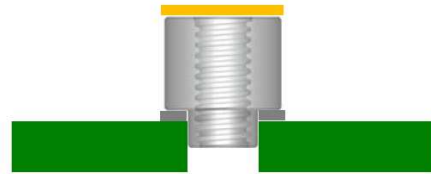
Before SMT process



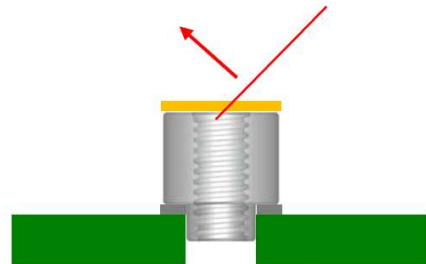
SMT process nozzle picking process



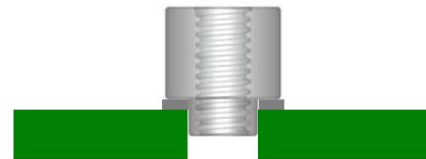
SMT process nozzle picking process



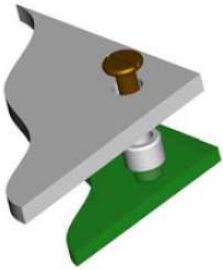
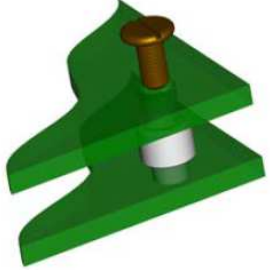
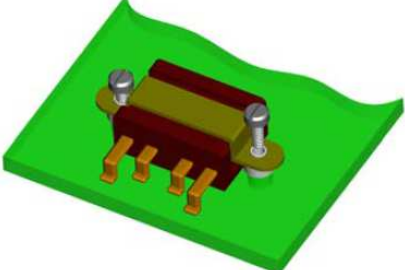
Take off the kapton tape with tooling



Assembly is finished



SMT FASTENER APPLICATION

Description		
		
CASE TO PCB	PCB TO PCB	COMPONENT TO PCB
APPLICATIONS		
<p>CASE TO PCB: Easy to fix the PCB with SMT nut and save the labor power. PCB TO PCB: To shield the upper PCB and lower PCB for short circuit situation. OMPONENT TO PCB: To fix component on the PCB, like connector, heatsink...etc.</p>		