

SMTSS™ REELFAST® SNAP-TOP® Standoffs

PEM® surface mounted standoffs that eliminate the need for attaching screws

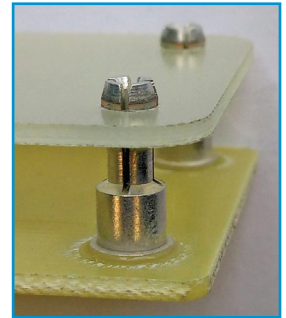
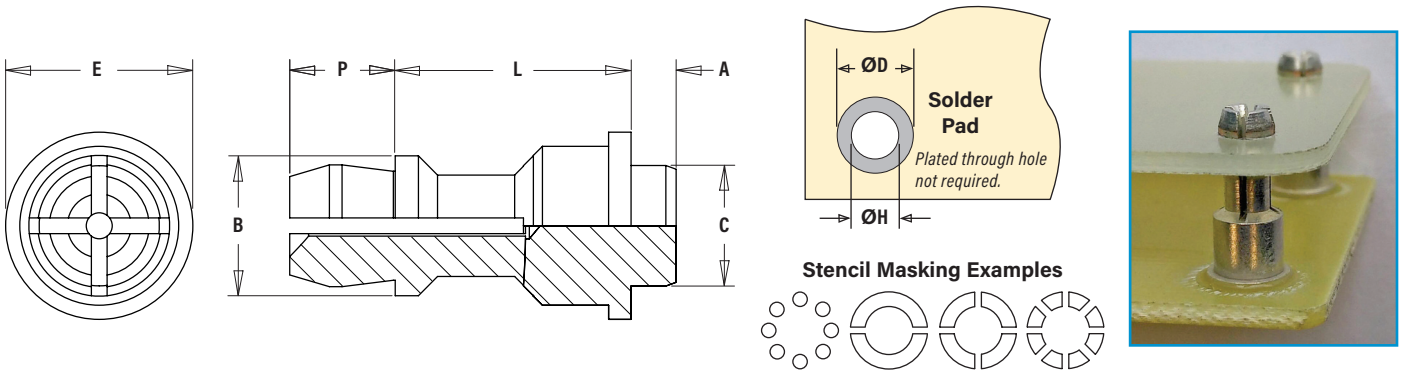


- PEM® SMTSS™ fasteners feature a spring action to hold a P.C. Board securely without screw or threaded hardware.
- Designed for on-only applications.*
- Mount on P.C. Boards in the same manner and at the same time as other surface mount components prior to the automated reflow solder process.
- Alleviates concerns about potential damage to P.C. Boards due to improper secondary installation operations.
- Fasteners provided on tape and reel compatible with existing SMT automated installation equipment.
- Benefits include reduced scrap, reduced handling and reduced risk of board damage.



* For removal applications, mounting hole can be increased to reduce removal force. Testing this product in your application is recommended.

SMTSS™ REELFAST® SNAP-TOP® STANDOFFS



All dimensions are in inches.

UNIFIED	Top Board Mounting Hole Diameter Code	Type and Material	Length Code "L" ±.005 (Length Code in 32nds of an inch)		Min. Sheet Thickness	A Max.	C Max.	E ±.005	B ±.005	P ±.005	ØH Hole Size in Sheet +.003 -.000	ØD Min. Solder Pad
			.250	.375								
	156	SMTSSS	8	12	.060	.060	.161	.250	.188	.141	.166	.276

All dimensions are in millimeters.

METRIC	Top Board Mounting Hole Diameter Code	Type and Material	Length Code "L" ±0.13 (Length Code in millimeters)			Min. Sheet Thickness	A Max.	C Max.	E ±0.13	B ±0.13	P ±0.13	ØH Hole Size in Sheet +0.08	ØD Min. Solder Pad
			6	8	10								
	4MM	SMTSSS	6	8	10	1.53	1.53	4.09	6.35	4.8	3.58	4.22	7

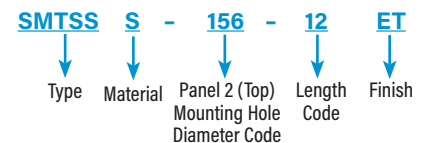
Fastener Material: Carbon Steel

Finish: Electro-plated tin ASTM B 545, Class A with Clear Preservative Coating, annealed ⁽¹⁾⁽²⁾

(1) See PEM Technical Support section of our web site for related plating standards and specifications.

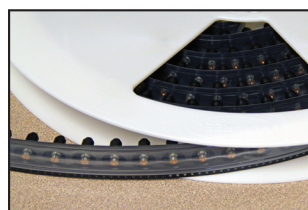
(2) Optimal solderability life noted on packaging.

PART NUMBER DESIGNATION



NUMBER OF PARTS PER REEL

Type, Material and Size	Length Code / Number of Parts per Reel		
SMTSSS-156	-8 / 280	-12 / 220	
SMTSSS-4MM	-6 / 300	-8 / 250	-10 / 200



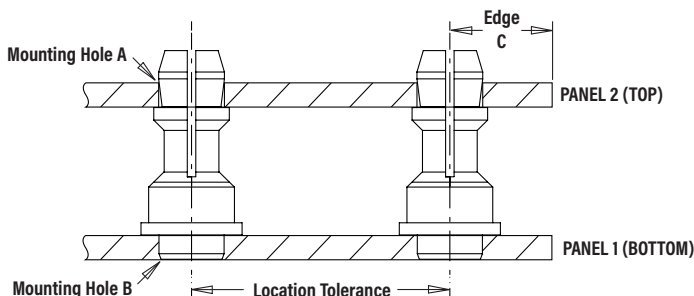
Packaged on 330 mm recyclable reels. Tape width is 24 mm. Supplied with polyimide patch for vacuum pick up. Reels conform to EIA-481.



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SMTSS™ STANDOFF APPLICATION DATA



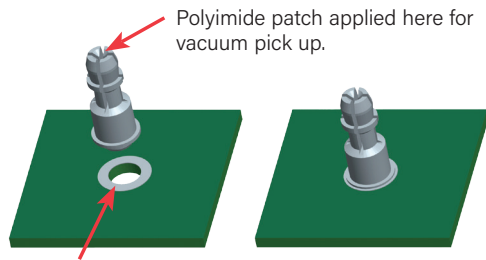
All dimensions are in inches.

UNIFIED	Type	Panel 1				Panel 2					
		Hardness Max.	Bottom Mounting Hole B +.003 -.000	Panel Material	Thickness Min.	Location Tolerance	Hardness Max.	Top Mounting Hole A +.003 -.000	Panel Material	Thickness Range	Edge Distance C Min.
	SMTSS	No Limit	.166	P.C. Board	.060	±.005	No Limit	.156	P.C. Board or Metal	.040 - .070	.100

All dimensions are in millimeters.

METRIC	Type	Panel 1				Panel 2					
		Hardness Max.	Bottom Mounting Hole B +0.08	Panel Material	Thickness Min.	Location Tolerance	Hardness Max.	Top Mounting Hole A +0.08	Panel Material	Thickness Range	Edge Distance C Min.
	SMTSS	No Limit	4.22	P.C. Board	1.53	±0.13	No Limit	4	P.C. Board or Metal	1 - 1.8	2.54

INSTALLATION



Solder paste applied to pad on PCB.

Solder fastener in place using standard surface mount techniques.

Fastener drawings and models are available at www.pemnet.com



Dimple
(Registered trademark)

PERFORMANCE DATA⁽¹⁾

Type, Material and Size	Panel 1 (Bottom)		Panel 2 (Top)
	Test Sheet Material	Pushout (2)	Max. Snap-on Force
SMTSS-156	.062" Single Layer FR-4	113 lbs.	20 lbs.
SMTSS-4MM	1.58 mm Single Layer FR-4	500 N	89 N

(1) Further testing details can be found in our website's literature section.

(2) With lead-free paste. Average values of 30 test points. The data presented here is for general comparison purposes only. Actual performance is dependent upon application variables. We will be happy to provide samples for you to install. If required, we can also test your installed hardware and provide you with the performance data specific to your application.

TESTING CONDITIONS

Oven	Quad ZCR convection oven with 4 zones	Vias	None
High Temp	473° F / 245° C	Spokes	2 Spoke Pattern
Board Finish	62% Sn, 38% Pb	Paste	Alpha CVP-390 Sn96.5/3.0Ag/0.5Cu (SAC305)
Board	.062" / 1.58 mm thick, Single Layer FR-4	Stencil	.0067" / 0.17 mm thick
Screen Printer	Ragin Manual Printer		

All PEM® products meet our stringent quality standards. If you require additional industry or other specific quality certifications, special procedures and/or part numbers are required. Please contact your local sales office or representative for further information.

Regulatory compliance information is available in Technical Support section of our website. Specifications subject to change without notice. See our website for the most current version of this bulletin.

PennEngineering®



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