Gore-Shield®

SUPERSOFT SMT EMI GASKETS AND GROUNDING PADS

Unique Surface-Mountable Solution

Technical Summary

GORE-SHIELD® Supersoft SMT EMI Gaskets and Grounding Pads are highly compressible and resilient electrically conductive pads that are compatible with standard surface mount technology (SMT) installation processes.

GORE-SHIELD® Supersoft SMT EMI Gaskets and Grounding Pads are comprised of a conductive silver-coated hollow silicone extrusion bonded to a solderable silver-plated metal support layer. Parts are packaged in EIA 481 standard tape-and-reel format for automated placement and reflow soldering using standard SMT processes. Parts are soldered to the ground trace on the PCB like any other SMT-compatible component.

By piecing a series of parts of identical or varying lengths on a PCB ground trace, a simple and efficient EMI seal can be formed between the PCB and corresponding shield housing. This enables users to create a low cost, custom EMI gasket at the board level without special tooling or custom installation equipment.

Individual parts can be used to create reliable discrete electrical contact points on the printed circuit board for grounding purposes.

Benefits

- Highly compressible and resilient
- Extremely cost effective
- Highly conductive at low pressures
- No curing required
- Repairable
- Survives multiple solder reflow operations
- Compatible with standard and lead-free solder reflow

Design Suggestions

- Replacements for die-cut, form-in-place or stamped metal spring-finger gaskets
- RF and DC grounding pads
- Conductive walls for cavity-to-cavity shielding
- Board-to-board interconnects
- Use as primary shielding method or to supplement existing shielding methods
- Flex circuit grounding

Applications

- Mobile phones, PDAs, PCMCIAs, WLAN, base-stations, power amplifiers, laptop computers
- Anywhere high electrical conductivity is needed in a compressible, resilient form

GORE-SHIELD® Supersoft SMT EMI Gasket Nominal Properties

	Part# 25SMT-4442		
Property	**–01**	**–03**	**–04**
Length (mm)	3.6	3.6	8.0
Width (mm)	1.7	2.5	
Thickness (mm)	1.6	2.4	
Recommended Compression Stop, RCS (mm)	1.2	1.9	
Force Required to Compress to RCS (N)	2.0	3.2	8.9
DC Resistance at RCS (Ohms)	0.018	0.030	0.009
Compression Set {ambient} (percent of original height)	4% 1,000 hours @ 20C		
Compression Set {dry heat} (percent of original height)	5% 1,000 hours @ 85C		
Compression Set {moist heat} (percent of original height)	14% 1,000 hours @ 85C and 85% RH		

Covered by Patent No.: US 6,255,581 B1
US 7,129,421 B2
Corresponding Foreign Patents issued and pending

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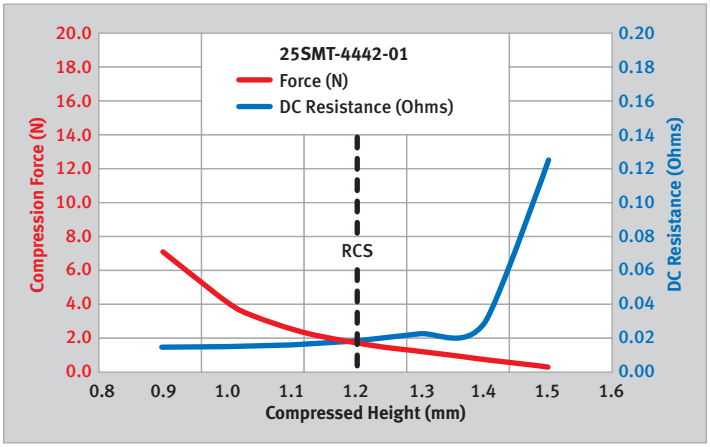
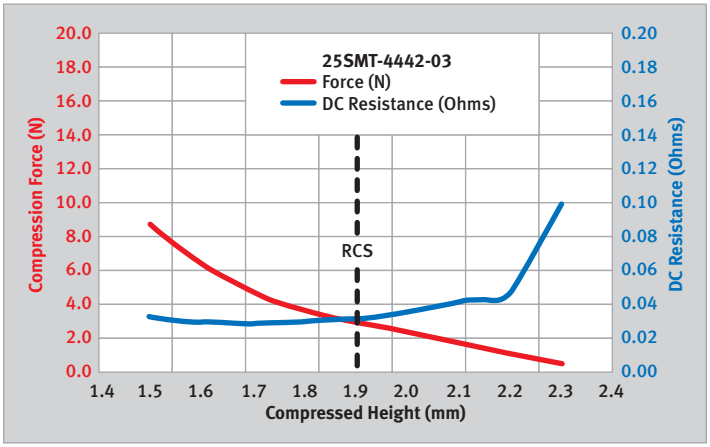
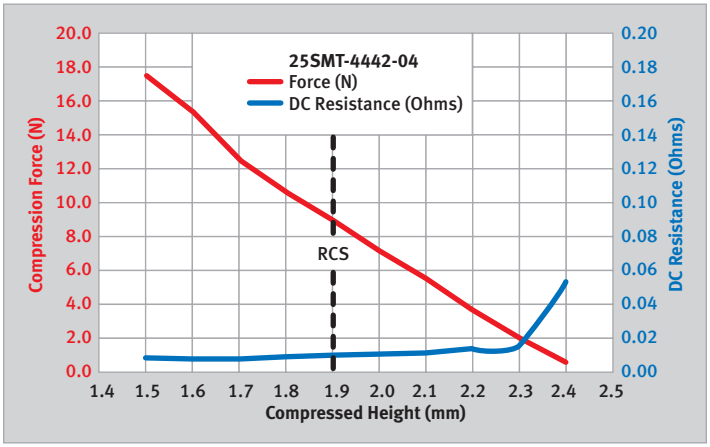
Compression/DC Resistance Performance







RoHS Status

RoHS Material*	Pass/Fail
Lead (Pb) Content	Pass
Cadmium (Cd) Content	Pass
Hexavalent Chromium (Cr6) Content	Pass
Mercury (Hg) Content	Pass
Bromine Compounds	Pass

*W. L. Gore & Associates declares that we do not intentionally add substances listed in Directive 2002/95/EU to GORE-SHIELD® Supersoft SMT EMI Gasket material. Independent lab tests have been performed and results are available upon request.

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JK051220-03 Rev. 8-21-07