TECHNICAL BULLETIN

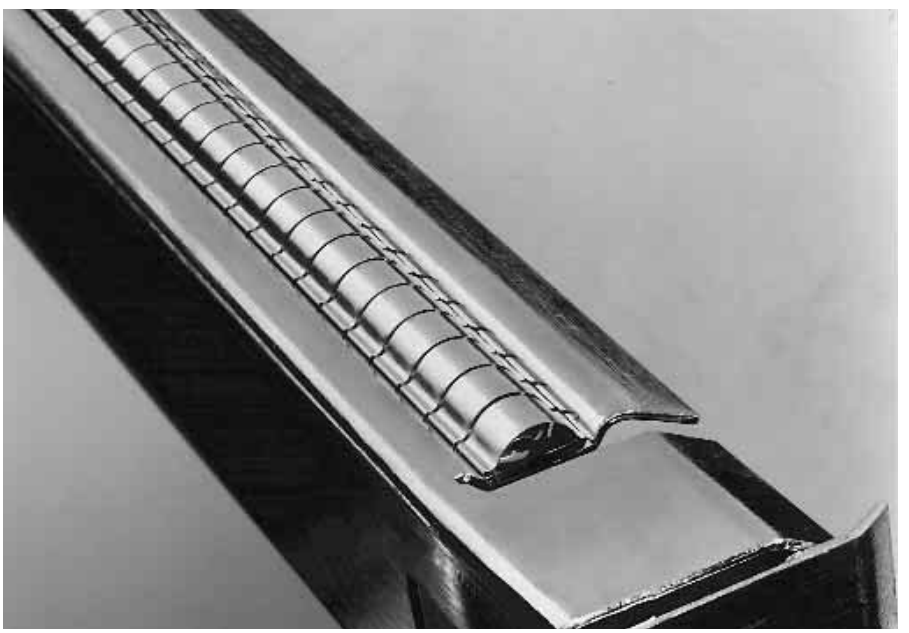
150

SPRING-LINE

Beryllium Copper EMI Shielding Gaskets

SPRING-LINE beryllium copper gaskets combine high levels of EMI shielding effectiveness with spring-finger wiping and low closure force properties. The high performance qualities of beryllium copper – high tensile strength, excellent anti-corrosion properties, and superb electrical conductivity – make it an ideal material for EMI shielding over a broad frequency range.

SPRING-LINE shielding gaskets are available in bright tin, bright copper and bright nickel finishes. Strips can be soft soldered or resistance welded without damage to their working surface. SPRING-LINE gaskets can be applied by edge mounting using integral clips, or by high tack, pressure-sensitive adhesive (provided on some versions).



MATERIAL SPECIFICATIONS

Chemical Composition
Beryllium Copper Alloy 25

Beryllium	1.8-2.0%
Cobalt plus Nickel	0.20% min.
Cobalt plus Nickel plus Iron	0.60% max.
Copper	Balance
General plating thickness	2-6 microns approx. (excluding exotic metals)

Mechanical and Electrical Properties

Tensile strength	407-475 psi
Yield strength	350-430 psi
Hardness	Rockwell C38-44

Pressure-Sensitive Adhesive Tape

Acrylic adhesive

Service temperature range –55 to 230°C (–67 to 450°F)

48 hour cure time with high peel and shear strength

High resistance to solvents

Unaffected by age

Length

Strips can be pre-cut to custom lengths or are available in standard 16 inch (406 mm) lengths.

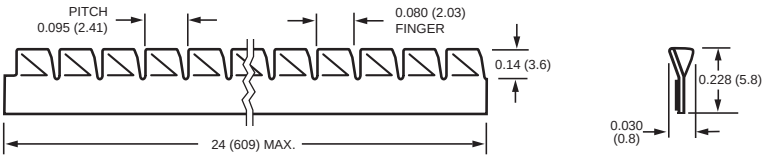
continued

PART NO. 81-02-11818-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.023 inch gap	. . . 0.34 (6)
Compression for 0.019 inch gap	. . 1.01 (18)
Compression for 0.012 inch gap	. . 3.19 (57)

MTL THICKNESS 0.003 in. (0.0762 mm)

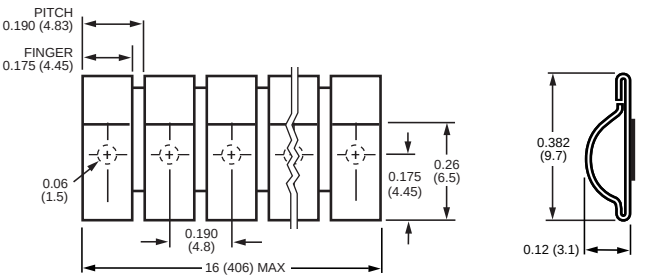


PART NO. 81-02-11838-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.11 inch gap	. . . 1.90 (34)
Compression for 0.08 inch gap	. . . 4.65 (83)
Compression for 0.06 inch gap	. . 5.60 (100)

MTL THICKNESS 0.003 in. (0.0762 mm)

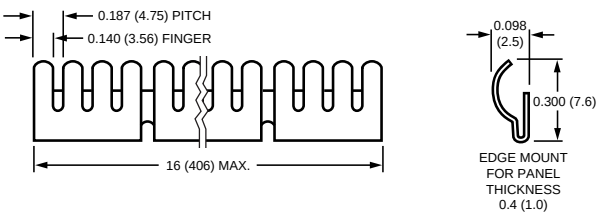


PART NO. 81-01-11831-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.11 inch gap	. . . . 0.34 (6)
Compression for 0.07 inch gap	. . . 1.68 (30)
Compression for 0.03 inch gap	. . . 5.04 (90)

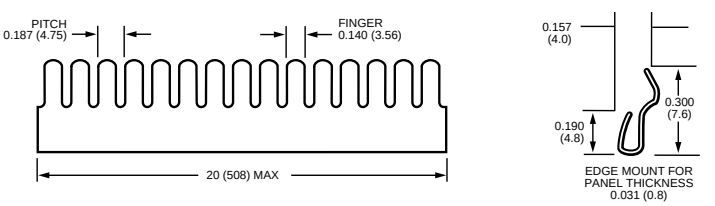
MTL THICKNESS 0.005 in. (0.127 mm)
Note: *Tool Diameter (0.050 in.) located under PSA*



PART NO. 81-02-11841-XXXX

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.07 inch gap	. . . 1.17 (21)
Compression for 0.05 inch gap	. . . .4.08 (73)

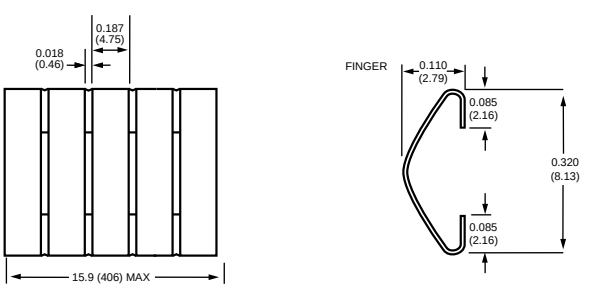
MTL THICKNESS 0.0039 in. (0.010 mm)



PART NO. 81-01-14186-XXXX

Compression details available on request

MTL THICKNESS 0.0039 in. (0.010 mm)



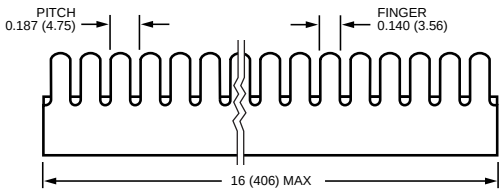
All dimensions are nominal. For applications where tolerances are critical, contact Chomerics' Applications Engineering Dept.

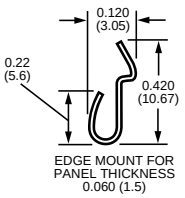
PART NO. 81-01-11828-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.11 inch gap	. . . . 0.34 (2)
Compression for 0.07 inch gap	. . . 1.68 (30)
Compression for 0.03 inch gap	. . . . 5.04 90)

MTL THICKNESS 0.005 in. (0.127 mm)

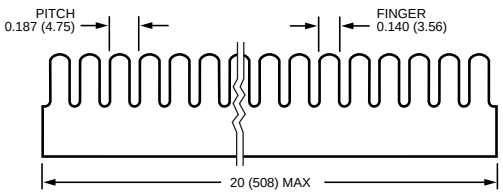


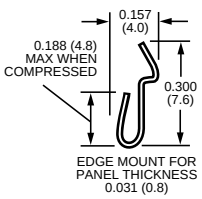


PART NO. 81-01-11841-XXXX

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.07 (1.9) gap	. . . . 1.2 (21)
Compression for 0.05 (1.27) gap	. . . 4.1 (73)

MTL THICKNESS 0.004 (0.10)



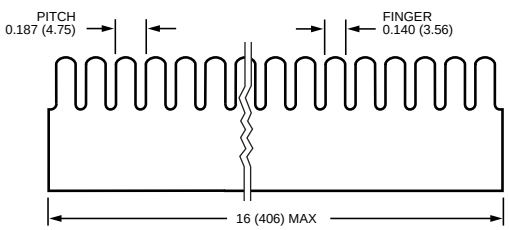


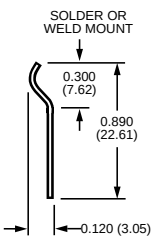
PART NO. 81-01-11839-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.11 inch gap	. . . . 0.34 (2)
Compression for 0.09 inch gap	. . . 0.67 (12)
Compression for 0.05 inch gap	. . . 1.68 (30)

MTL THICKNESS 0.004 in. (0.10 mm)



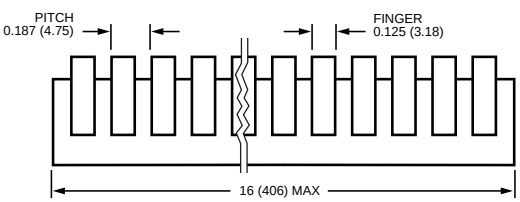


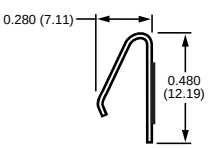
PART NO. 81-02-11840-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.25 inch gap	. . . . 0.04 (1)
Compression for 0.19 inch gap	. . . . 0.34 (6)
Compression for 0.14 inch gap	. . . 1.34 (24)

MTL THICKNESS 0.006 in. (0.152 mm)



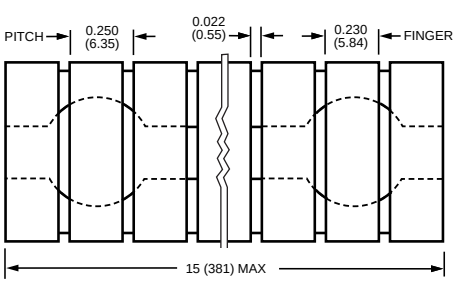


PART NO. 81-01-11832-XXXX

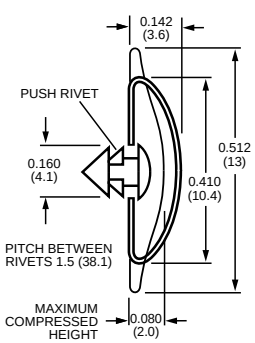
INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.12 inch gap	. . . . 0.39 (7)
Compression for 0.10 inch gap	. . . 0.95 (17)
Compression for 0.08 inch gap	. . . 1.46 (26)

MTL THICKNESS 0.003 in. (0.0762 mm)



Recommended Rivet Hole – (3.1)



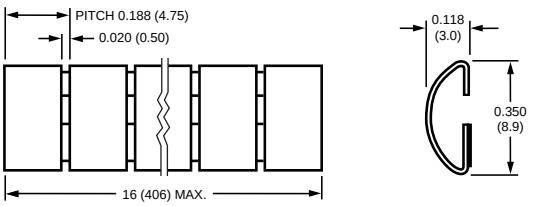
All dimensions are nominal. For applications where tolerances are critical, contact Chomerics' Applications Engineering Dept.

PART NO. 81-02-11834-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.09 inch gap	. . . 0.90 (16)
Compression for 0.07 inch gap	. . . 1.79 (32)

MTL THICKNESS 0.003 in. (0.0762 mm)
Note: Tool Diameter (0.050 in.) located under PSA

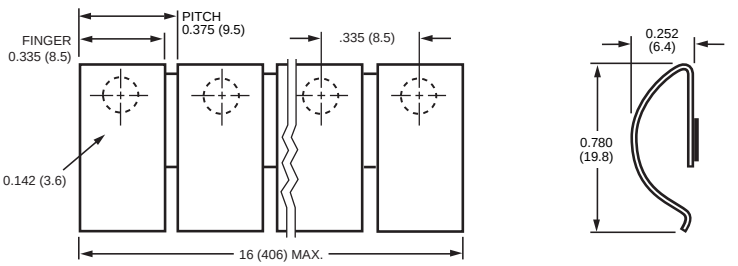


PART NO. 81-02-11823-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.21 inch gap	. . . 0.19 (3.4)
Compression for 0.17 inch gap	. . . . .0.34 (6)
Compression for 0.13 inch gap	. . . 0.46 (8.2)

MTL THICKNESS 0.003 in. (0.076 mm)

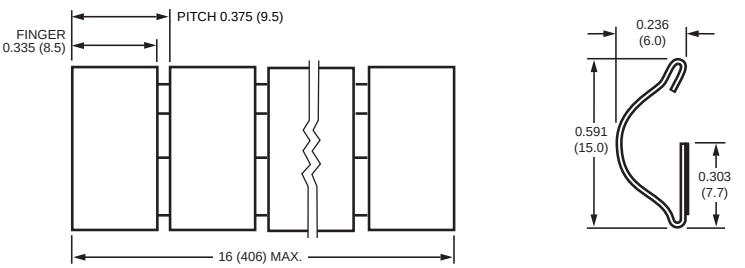


PART NO. 81-02-11821-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.175 inch gap	. . . 0.8 (12)
Compression for 0.012 inch gap	. . . 1.6 (19)

MTL THICKNESS 0.004 in. (0.10 mm)
Note: Tool Diameter (0.075 in.) located under PSA

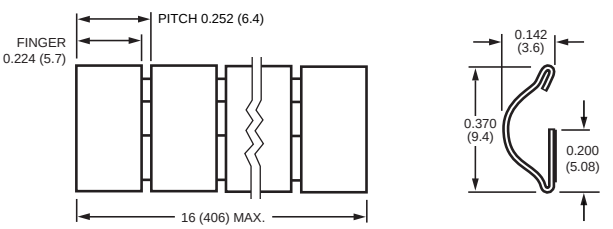


PART NO. 81-02-11822-XXXX

INCHES (MM)

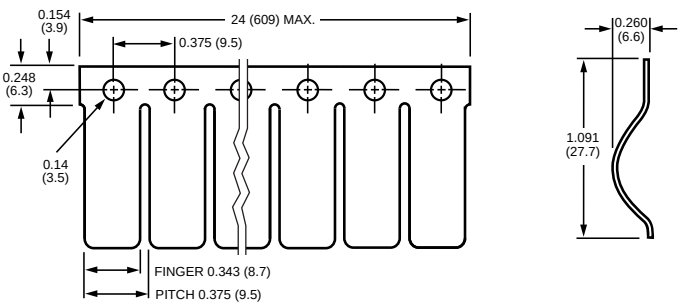
Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.11 inch gap	. . . . 4.3 (77)
Compression for 0.08 inch gap	. . . 6.6 (118)
Compression for 0.05 inch gap	. . . 1.0 (178)

MTL THICKNESS 0.003 in. (0.0762 mm)



PART NO. 81-01-11901-XXXX

INCHES (MM)

Compression/Deflection	lbs/inch (kg/meter)
Compression for 0.23 inch gap	. . . . . 0.4 (7)
Compression for 0.15 inch gap	. . . . 2.1 (38)
Compression for 0.06 inch gap	. . . . 4.1 (74)

MTL THICKNESS 0.004 in. (0.10 mm)