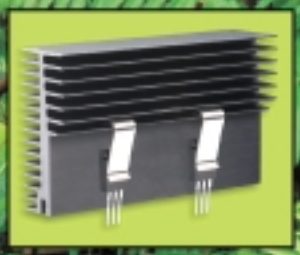
THE MAX CLIP SYSTEM™

THE PROPRIETARY THERMAL MANAGEMENT SOLUTION FOR ALL POWER COMPONENTS



AAVID THERMALLOY

ONE COOL IDEA AFTER ANOTHER

THE MAX CLIP SYSTEM™ FOR POWER TRANSISTORS

How do you optimize the thermal management of power transistors while saving labor and costs? That's easy. The Max Clip System™ – Aavid Thermalloy's innovative high performance, low cost way to eliminate mounting holes, screws, rivets, and thermal inefficiency. Quickly. Simply. Accurately.

Users of The Max Clip System have proof positive that this proprietary clip mounting technology delivers dependable performance that is not only equal to, but often superior to, standard screw and rivet designs. But the advantages don't stop there.

The clips allow for rapid, automated or manual assembly. They eliminate the problems associated with the torque control of screws, force applied in an incorrect area, component tilting as a result of non-axial pressure and component damage from over-tightening.

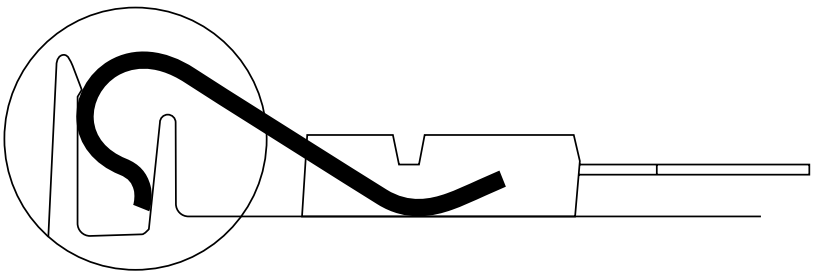
For high-volume production, jigs and high-speed automation can be used to locate components and complete the assembly. This eliminates the time and expense of drilling and tapping holes. What's more, screws and nuts are not required. The bottom line? Substantially lower assembly costs.

By applying optimum force right in the center of the semiconductor, The Max Clip System greatly improves thermal contact and maximizes component reliability. Since there is constant pressure, nothing vibrates or loosens. The system can follow the movement of thermal interface material as it adapts to the shape of the component, further maintaining consistent pressure and maximizing thermal transfer.

The ease with which clips can be removed and reapplied simplifies ongoing maintenance. And to accommodate design changes, clips can be easily rearranged, removed, or exchanged.

Features and benefits of The Max Clip System include:
- Provides mounting for discrete power devices with or without through-holes
- Reduces assembly costs
- Optimizes thermal management of power transistors
- Allows flexibility for moving or changing devices
- Provides consistent mounting force for reduced thermal resistivity
- Max Clips are tooled and ready for a variety of devices, including: TO-220, TO-247, and TO-3P
- Assembly costs using The Max Clip System are lower than with conventional hardware

The Max Clip System is patented throughout Europe, North America, and Asia.



The Max Clip System compromises a proprietary reduced fin system incorporated into each heat sink into which a clip is pressed for optimum retention

U.S. Patent # 5,991,151

CONTENTS

THE MAX CLIP SYSTEM™.
CLIP SOLUTIONS ONLY LIMITED BY THE IMAGINATION.

The Max Clip System is approved by leading providers of power semiconductors, including: Advanced Power Technology, International Rectifier, STMicroelectronics, and IXYS

ADVANCED POWER TECHNOLOGY®

APT Advanced Power Technologies manufactures high power, high voltage, high performance power semiconductors for the internet, computers and high capacity mass storage products, wireless cellular base stations for telecommunications, advanced industrial, military and space applications.

International IOR Rectifier

International Rectifier is a global supplier of power semiconductors for power conversion. Its Hexfet MOSFETs are used in anti-lock braking and fuel injection systems, disk drives, printers, video cameras, power tools, electronic lighting ballasts, industrial test equipment, telephone networks/modems, and satellites.

STMicroelectronics isone of the world's leading suppliers of semiconductor integrated circuits and discreet devices. STM is especially focused on MPEG2 decoder ICs, smartcard MCUs, special automotive ICs and EPROM memories.

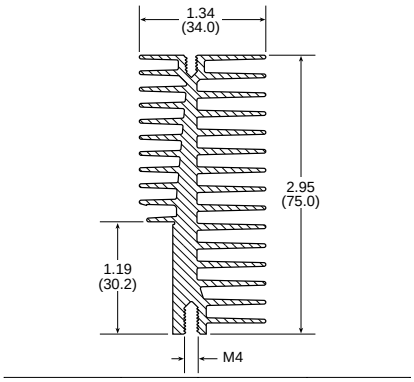
IXYS

IXYS Corporation designs, develops and markets power semiconductors for controlling energy in motor drives, power conversion (UPS uninterruptible power supplies and SMPS switch mode power supplies), and medical electronics. IXYS focuses on high power semiconductors processing over 500 watts of power.

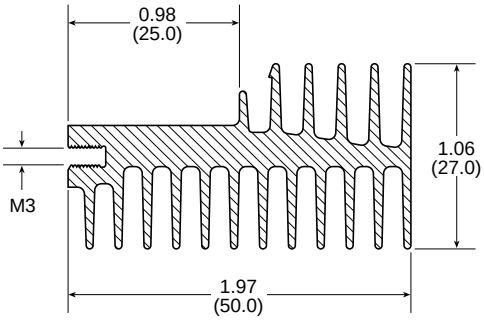
THE MAX CLIP SYSTEM™ EXTRUSION PROFILES

For previous Thermalloy part numbers, please refer to pages 17-18

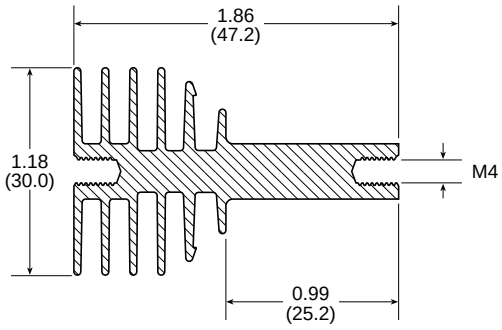
78010
lb/ft: 1.663 kg/m: 2.475 • Rthn = 1.45 °C/W • Rthf = 0.39 °C/W



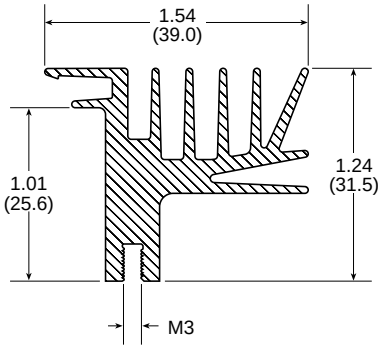
78015
lb/ft: 0.927 kg/m: 1.379 • Rthn = 2.46 °C/W • Rthf = 0.65 °C/W



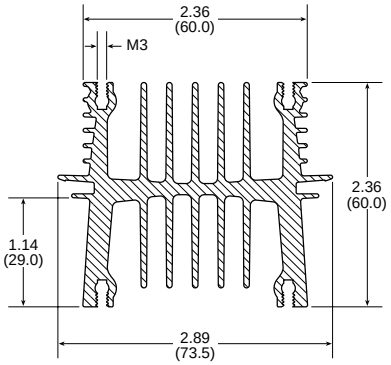
78020
lb/ft: 0.827 kg/m: 1.230 • Rthn = 3.02 °C/W • Rthf = 0.84 °C/W



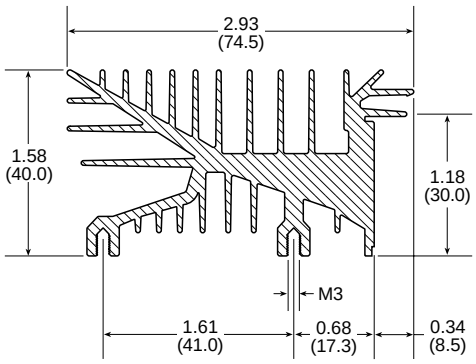
78025
lb/ft: 0.663 kg/m: 0.987 • Rthn = 3.10 °C/W • Rthf = 1.02 °C/W



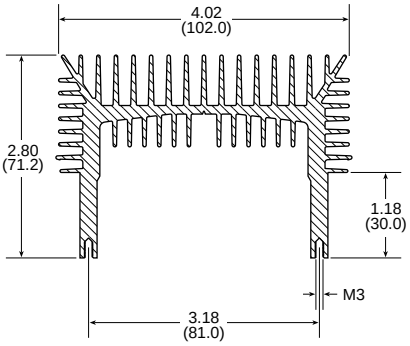
78030
lb/ft: 2.296 kg/m: 3.417 • Rthn = 1.10 °C/W • Rthf = 0.38 °C/W



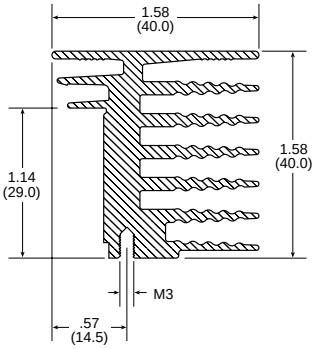
78035
lb/ft: 1.694 kg/m: 2.521 • Rthn = 1.23 °C/W • Rthf = 0.42 °C/W



78040
lb/ft: 3.115 kg/m: 4.636 • Rthn = 0.81 °C/W Rthf = 0.28 °C/W

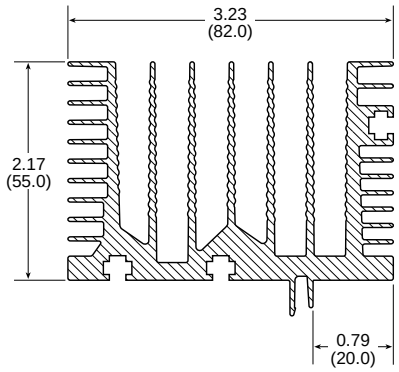


78045
lb/ft: 1.065 kg/m: 1.585 • Rthn = 2.12 °C/W • Rthf = 0.64 °C/W

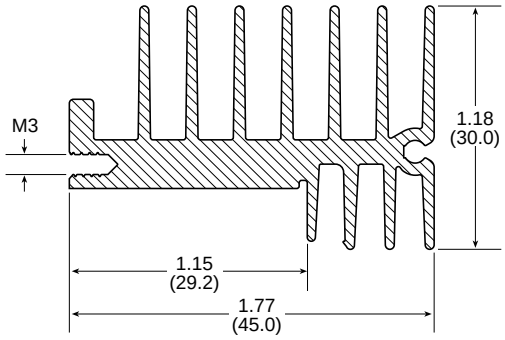


THE MAX CLIP SYSTEM™ EXTRUSION PROFILES

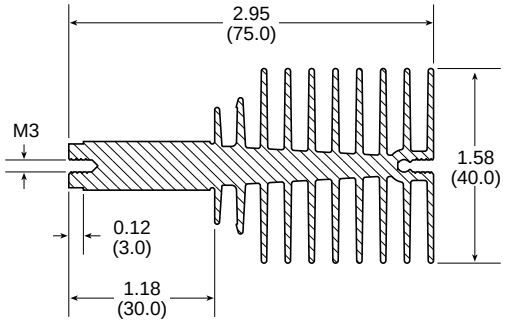
78050 lb/ft: 2.701 kg/m: 4.020 • Rthn = 0.63 °C/W • Rthf = 0.25 °C/W



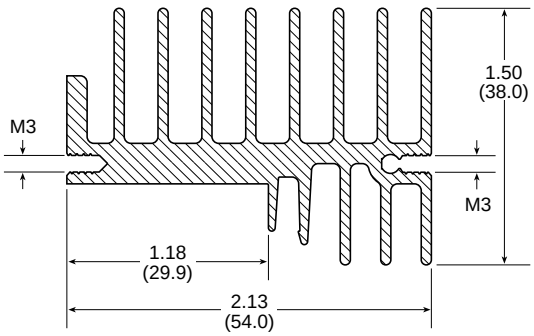
78060 lb/ft: 0.791 kg/m: 1.177 • Rthn = 2.33 °C/W • Rthf = 0.76 °C/W



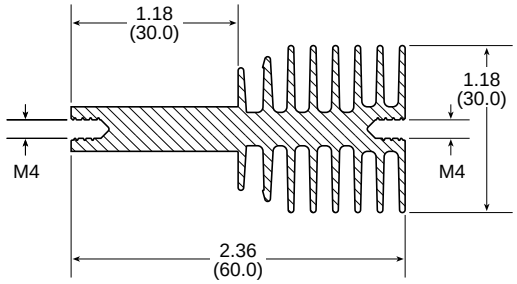
78070 lb/ft: 1.725 kg/m: 2.567 • Rthn = 1.55 °C/W • Rthf = 0.41 °C/W



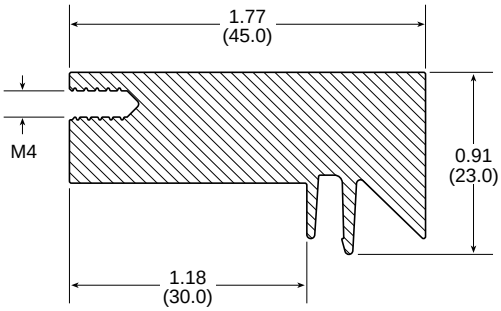
78075 lb/ft: 1.099 kg/m: 1.636 • Rthn = 1.71 °C/W • Rthf = 0.57 °C/W



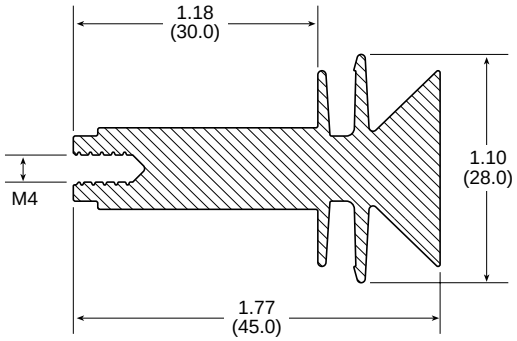
78220 lb/ft: 1.112 kg/m: 1.655 • Rthn = 2.49 °C/W • Rthf = 0.74 °C/W



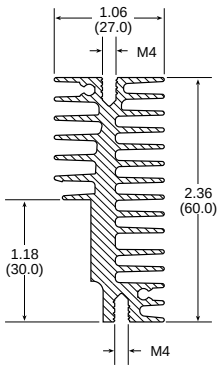
78225 lb/ft: 1.175 kg/m: 1.749



78320 lb/ft: 0.933 kg/m: 1.398



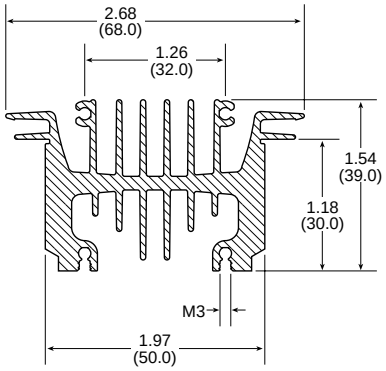
78245 lb/ft: 1.117 kg/m: 1.662 • Rthn = 2.29 °C/W • Rthf = 0.56 °C/W



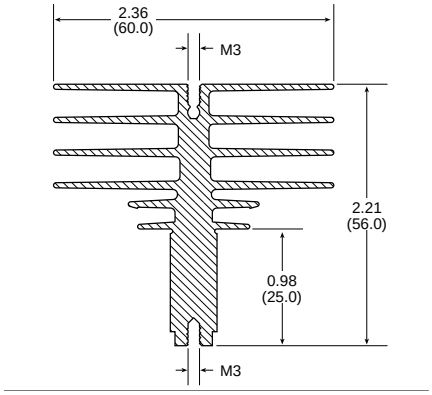
THE MAX CLIP SYSTEM™ EXTRUSION PROFILES

For previous Thermalloy part numbers, please refer to pages 17-18

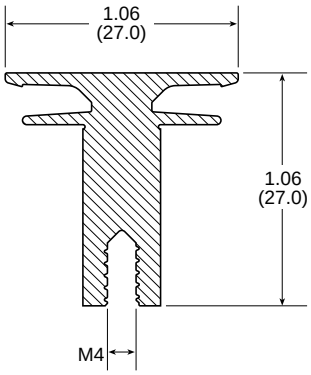
78345
lb/ft: 1.482 kg/m: 2.206 • Rthn = 1.66 °C/W • Rthf = 0.49 °C/W



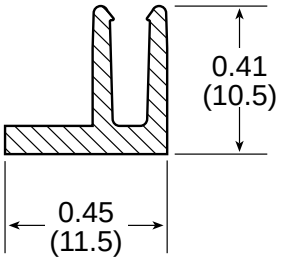
78250
lb/ft: 1.445 kg/m: 2.150 • Rthn = 1.42 °C/W • Rthf = 0.52 °C/W



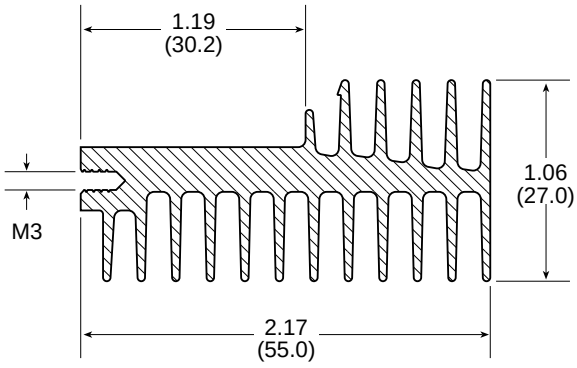
78255
lb/ft: 0.458 kg/m: 0.682 • Rthn=3.43 °C/W • Rthf=1.59 °C/W



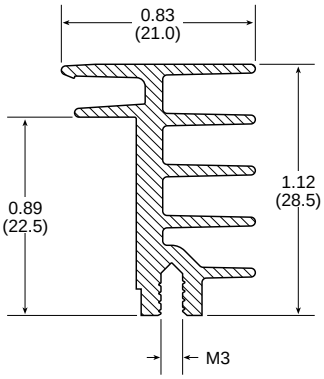
78260
lb/ft: 0.081 kg/m: 0.121



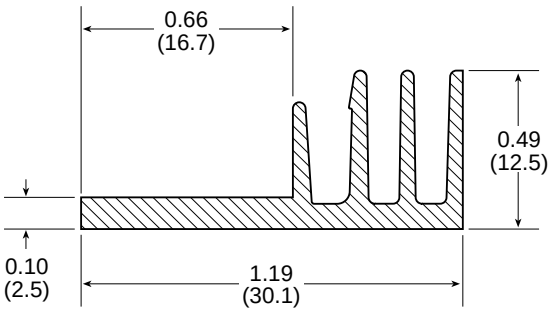
78340
lb/ft: 0.995 kg/m: 1.480 • Rthn = 2.37 °C/W • Rthf = 0.66 °C/W



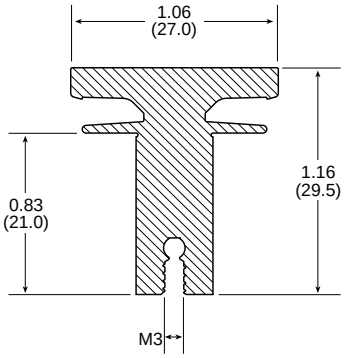
78265
lb/ft: 0.32 kg/m: 0.475 • Rthn = 4.12 °C/W • Rthf = 1.63 °C/W



78335
lb/ft: 0.21 kg/m: 0.310 • Rthn = 6.34 °C/W • Rthf = 2.38 °C/W

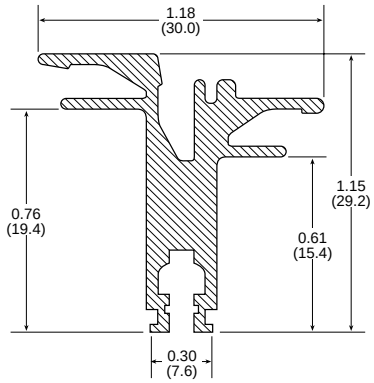


78270
lb/ft: 0.63 kg/m: 0.944 • Rthn = 3.43 °C/W • Rthf = 1.59 °C/W



THE MAX CLIP SYSTEM™ EXTRUSION PROFILES

78370
lb/ft: 0.38 kg/m: 0.559 • Rthn = 3.20 °C/W • Rthf = 1.62 °C/W



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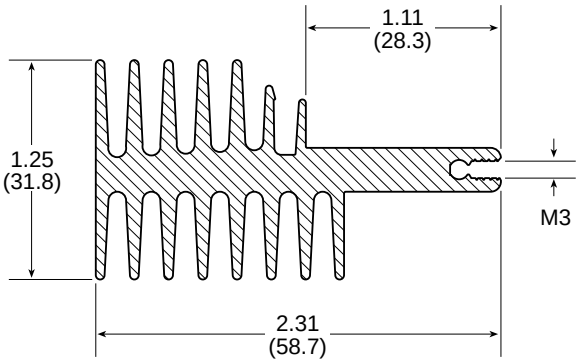
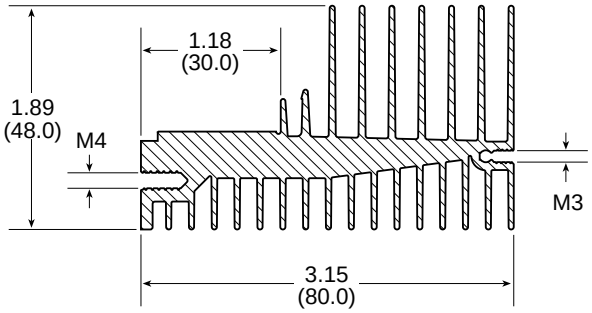
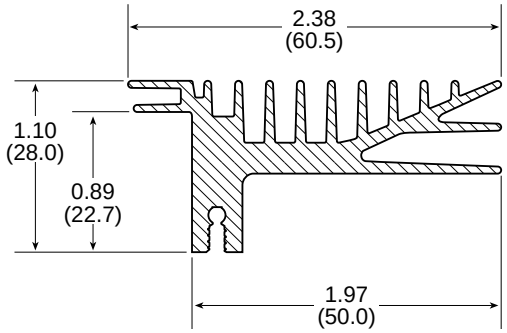
lb/ft: 1.19 kg/m: 1.777 • Rthn = 2.35 °C/W • Rthf = 0.67 °C/W



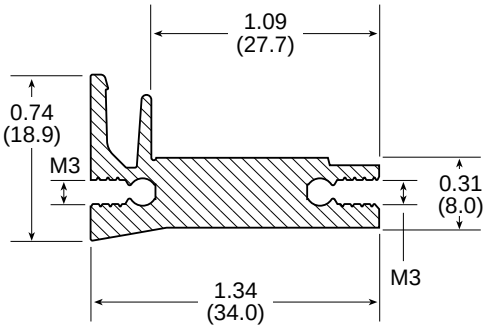
78315
lb/ft: 2.11 kg/m: 3.140 • Rthn = 1.06 °C/W • Rthf = 0.34 °C/W



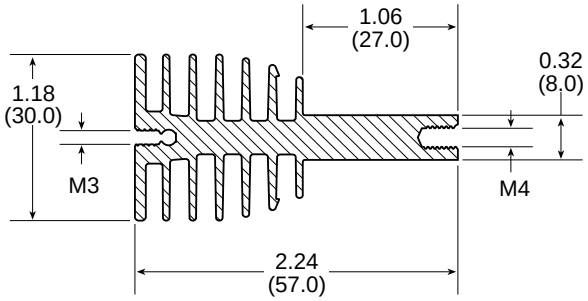
78215
lb/ft: 0.88 kg/m: 1.310 • Rthn = 2.5 °C/W • Rthf = 0.84 °C/W



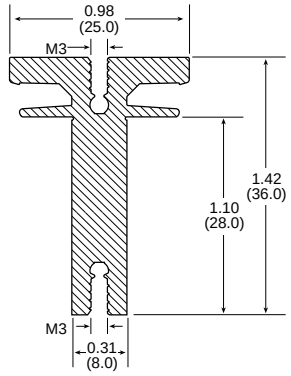
78210
lb/ft: 0.48 kg/m: 0.711



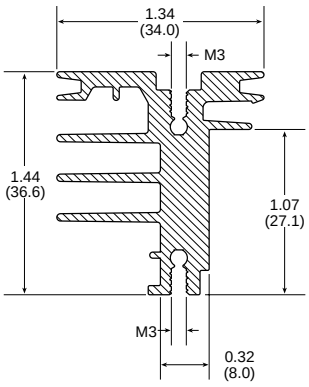
78205
lb/ft: 1.05 kg/m: 1.563 • Rthn = 2.42 °C/W • Rthf = 0.75 °C/W



78200
lb/ft: 0.59 kg/m: 0.874



78195
lb/ft: 0.74 kg/m: 1.096 • Rthn = 2.70 °C/W • Rthf = 0.93 °C/W



THE MAX CLIP SYSTEM™ EXTRUSION PROFILES

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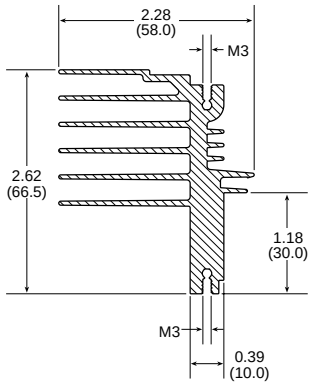
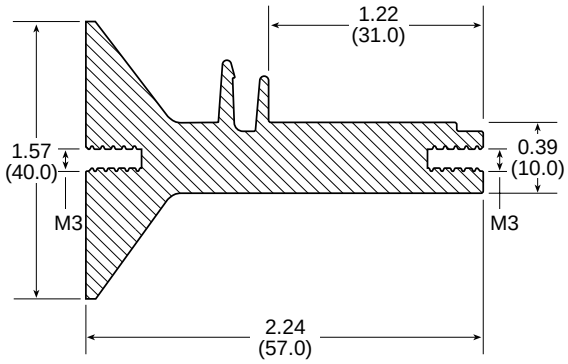
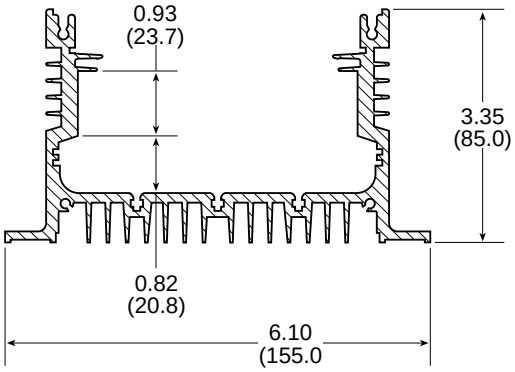
78190
lb/ft: 1.59 kg/m: 2.363 • Rthn = 1.25 °C/W • Rthf = 0.50 °C/W



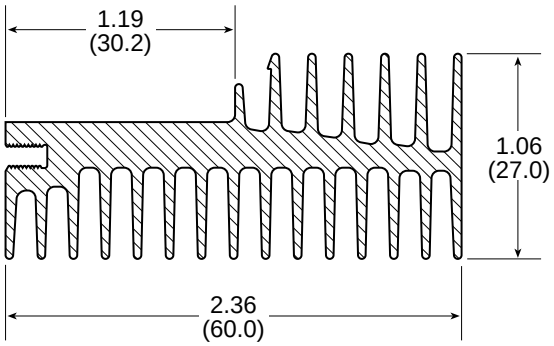
78185
lb/ft: 1.35 kg/m: 2.015



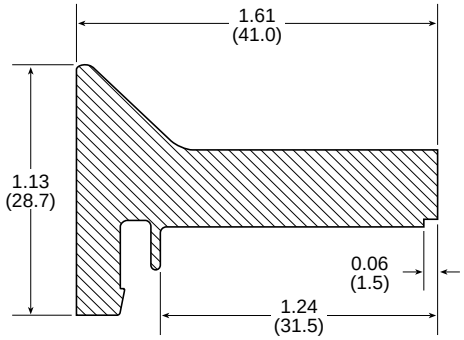
78110
lb/ft: 4.09 kg/m: 6.091 • Rthn = 0.55 °C/W • Rthf = 0.27 °C/W



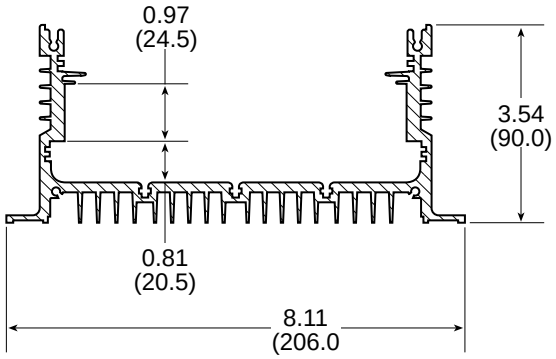
78080
lb/ft: 1.17 kg/m: 1.736 • Rthn = 2.27 °C/W • Rthf = 0.55 °C/W



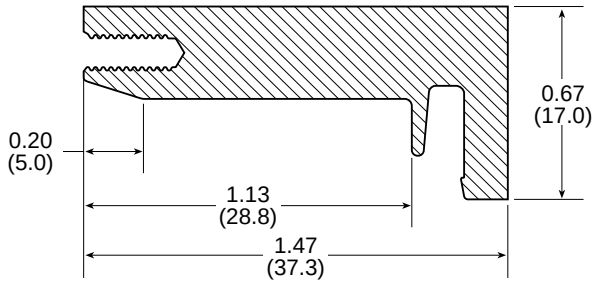
78085
lb/ft: 0.89 kg/m: 1.317



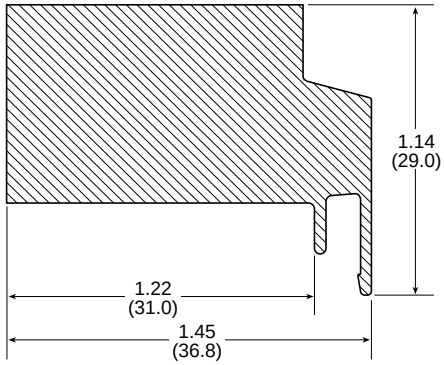
78105
lb/ft: 3.24 kg/m: 4.826 • Rthn = 0.63 °C/W • Rthf = 0.25 °C/W



78090
lb/ft: 0.55 kg/m: 0.832

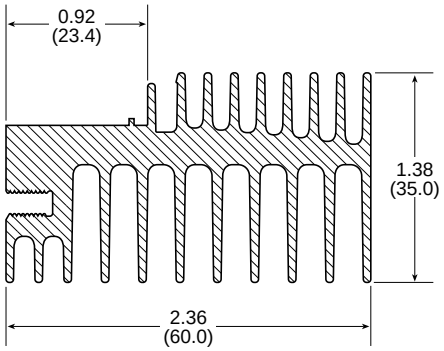


78095
lb/ft: 1.26 kg/m: 1.881

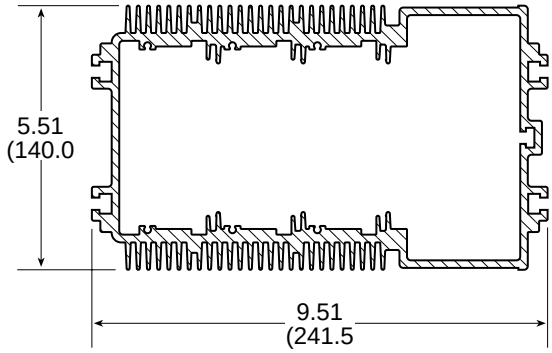


THE MAX CLIP SYSTEM™ EXTRUSION PROFILES

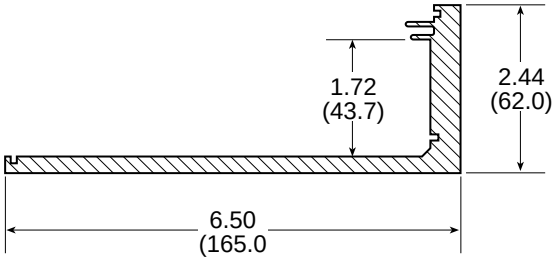
78295
lb/ft: 1.46 kg/m: 2.174 • Rthn = 1.67 °C/W • Rthf = 0.47 °C/W



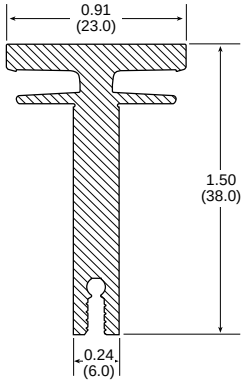
78380
lb/ft: 11.03 kg/m: 16.413 • Rthn = 0.43 °C/W • Rthf = 0.16 °C/W



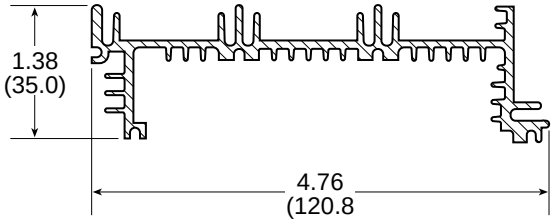
78300
lb/ft: 3.05 kg/m: 4.544



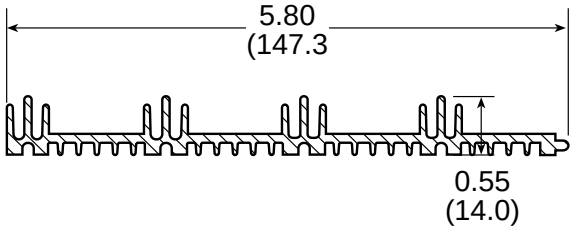
78280
lb/ft: 0.50 kg/m: 0.750 • Rthn = 3.11 °C/W • Rthf = 1.50 °C/W



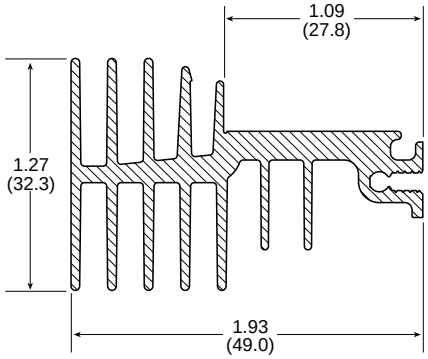
78305
lb/ft: 1.09 kg/m: 1.623 • Rthn = 1.44 °C/W • Rthf = 0.61 °C/W



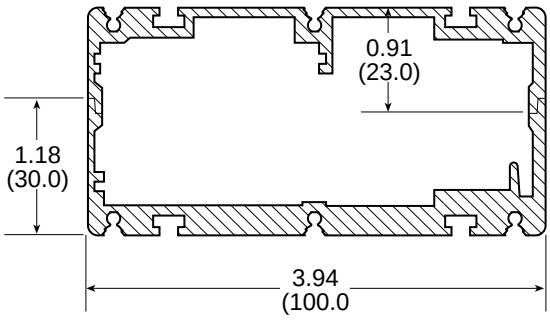
78310
lb/ft: 1.03 kg/m: 1.526 • Rthn = 1.45 °C/W • Rthf = 0.60 °C/W



78335
lb/ft: 0.77 kg/m: 1.145 • Rthn = 2.34 °C/W • Rthf = 0.76 °C/W



78180
lb/ft: 1.35 kg/m: 2.006

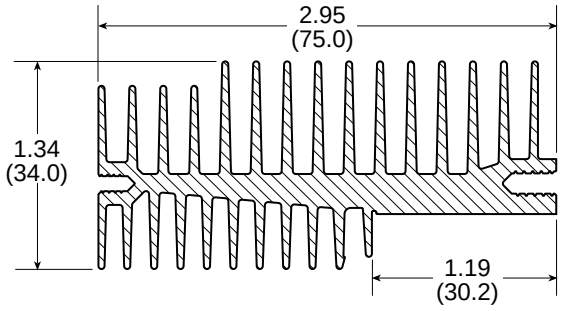


THE MAX CLIP SYSTEM™ EXTRUSION PROFILES

For previous Thermalloy part numbers, please refer to pages 17-18

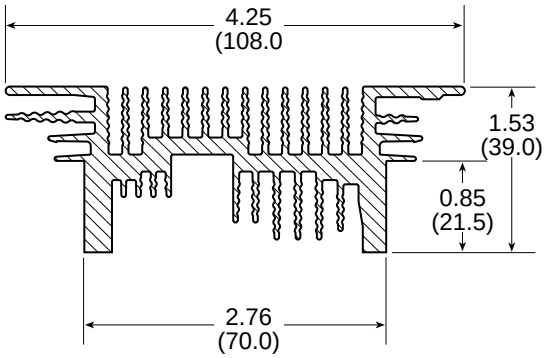
78285

lb/ft: 1.37 kg/m: 2.041 • Rthn = 1.47 °C/W • Rthf = 0.40 °C/W



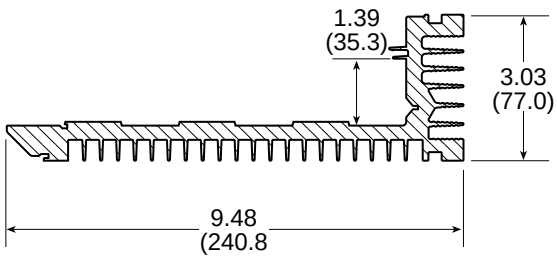
78360

lb/ft: 2.21 kg/m: 3.283 • Rthn = 1.18 °C/W • Rthf = 0.41 °C/W



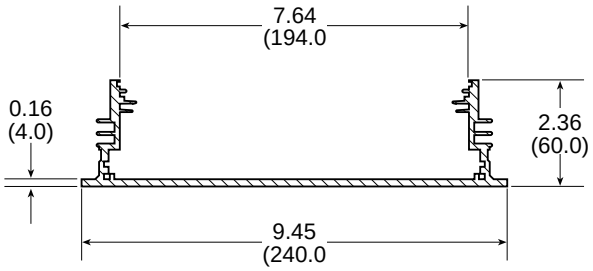
78290

lb/ft: 6.52 kg/m: 9.698 • Rthn = 0.49 °C/W • Rthf = 0.22 °C/W



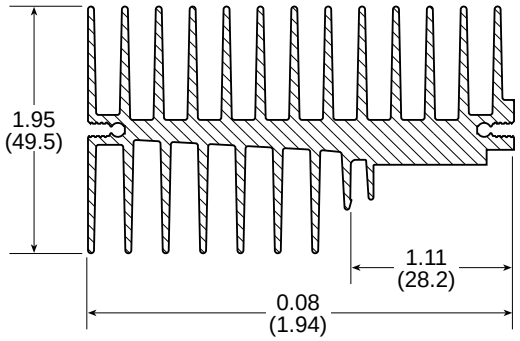
78385

lb/ft: 2.88 kg/m: 4.290



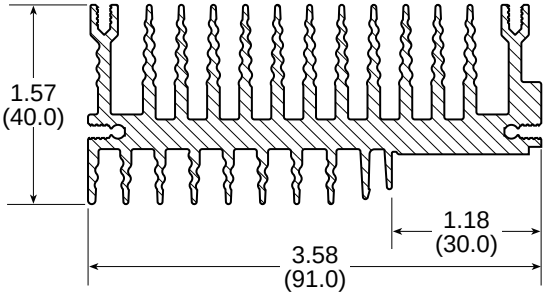
78350

lb/ft: 2.32 kg/m: 3.450 • Rthn = 0.93 °C/W • Rthf = 0.29 °C/W



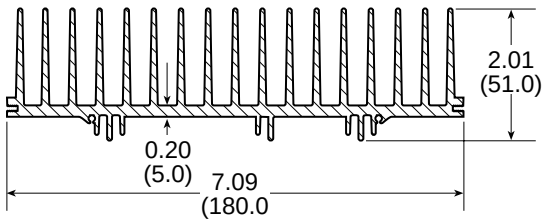
78365

lb/ft: 2.43 kg/m: 3.611 • Rthn = 1.10 °C/W • Rthf = 0.31 °C/W



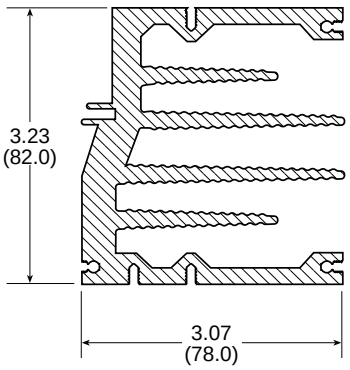
78390

lb/ft: 4.11 kg/m: 6.100 • Rthn = 0.44 °C/W • Rthf = 0.19 °C/W

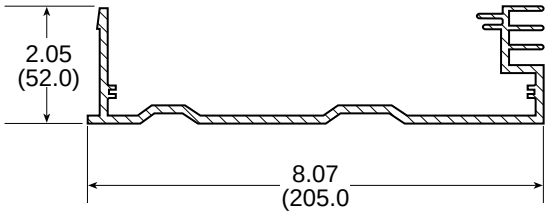


78395

lb/ft: 4.09 kg/m: 6.083 • Rthn = 0.74 °C/W • Rthf = 0.32 °C/W



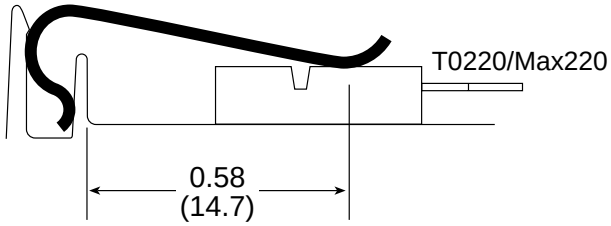
78400 lb/ft: 2.07 kg/m: 3.083



THE MAX CLIP SYSTEM™ CLIPS

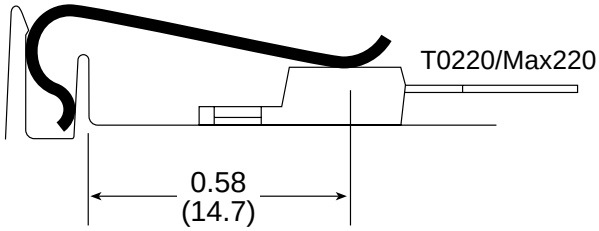
032406 0.39 inch x 0.020 = 5.15 pounds

Max Clip01



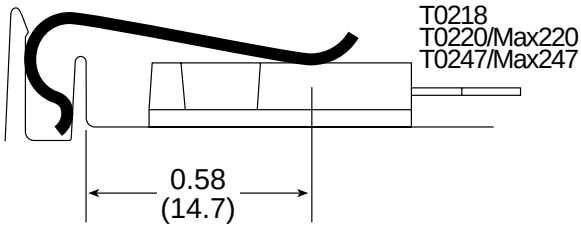
032407 0/47 inch x 0.020 = 6.27 pounds

Max Clip02



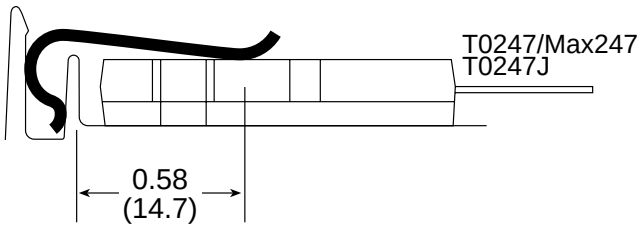
032408 0.59 inch x 0.020 = 8.06 pounds

Max Clip03



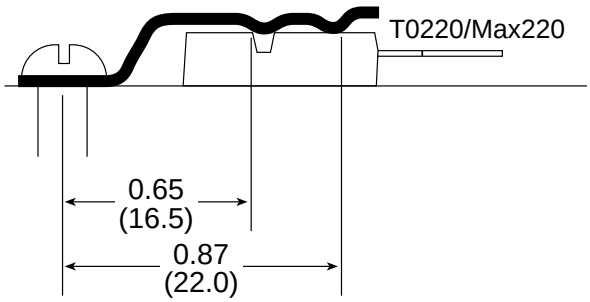
032409 0.79 inch x 0.020 = 10.75 pounds

Max Clip04



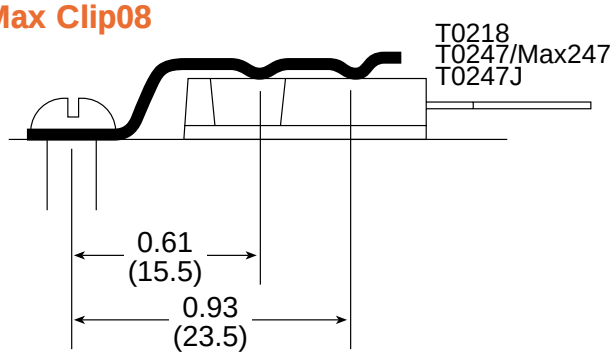
032410 12 mm x 0.023 = 17.92 pounds

Max Clip07



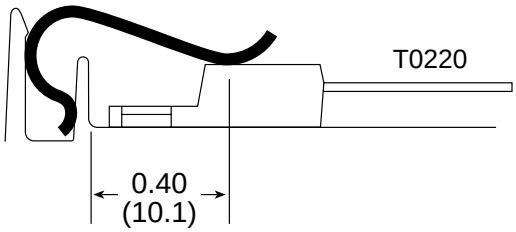
032411 0.71 inch x 0.023 = 26.88 pounds

Max Clip08



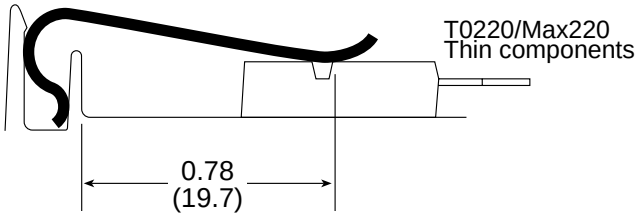
032611 0.39 inch x 0.020 = 10.08 pounds

Max Clip09



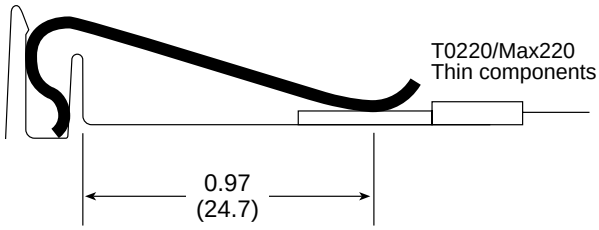
032412 0.47 inch x 0.023 = 8.96 pounds

Max Clip10



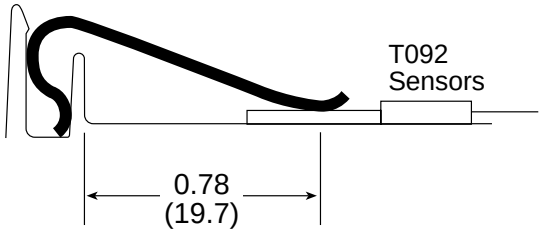
032413 0.47 inch x 0.023 = 8.96 pounds

Max Clip11



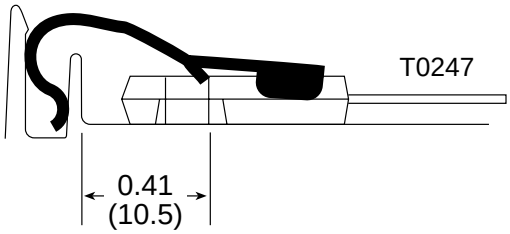
032414 0.63 inch x 0.023 = 5.60 pounds

Max Clip12



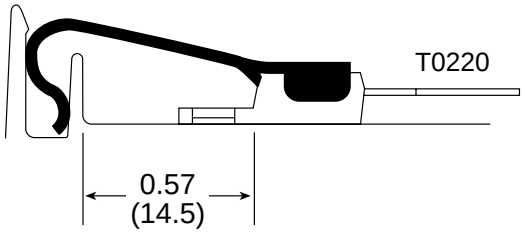
032612 0.67 inch x 0.020 = 8.96 pounds

Max Clip13



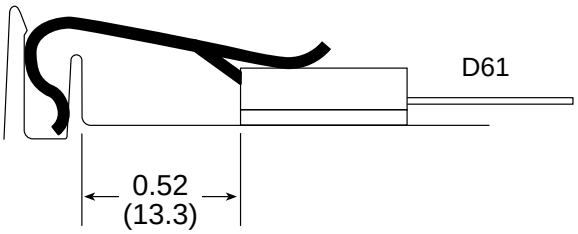
032613 0.51 inch x 0.020 = 4.48 pounds

Max Clip14



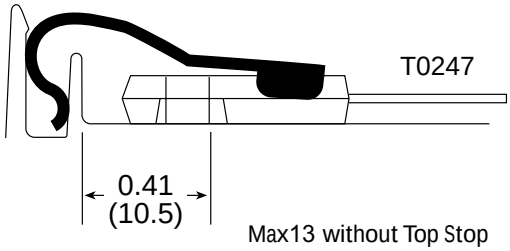
032614 0.71 inch x 0.023 = 13.44 pounds

Max Clip15



032774 17 mm x 0.020 = 8.96 pounds

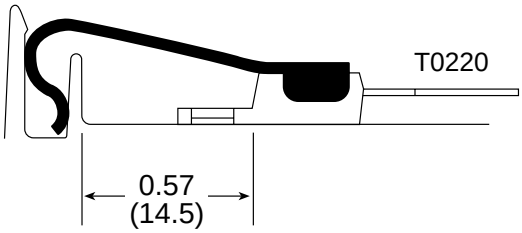
Max Clip16



Max13 without Top Stop

032775 13 mm x 0.020 = 4.48 pounds

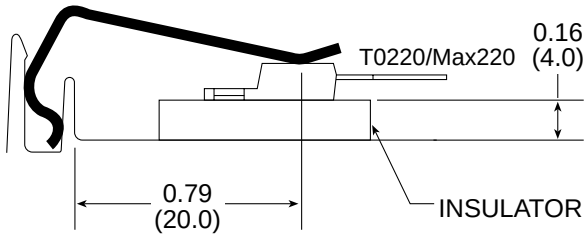
Max Clip17



Max14 without Top Stop

032615 0.47 inch x 0.023 = 11.20 pounds

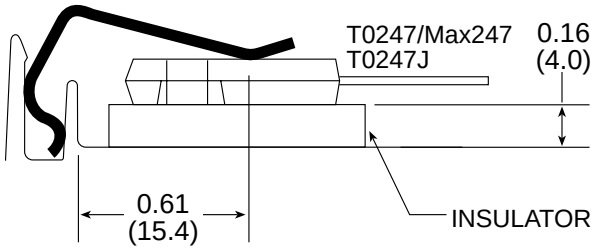
Max Clip20



THE MAX CLIP SYSTEM™ CLIPS

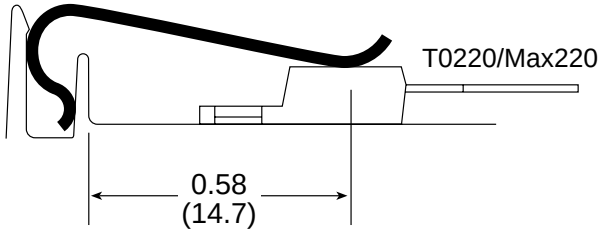
032616 0.71 inch x 0.023 = 16.35 pounds

Max Clip23



032617 0.39 inch x 0.028 = 13.44 pounds

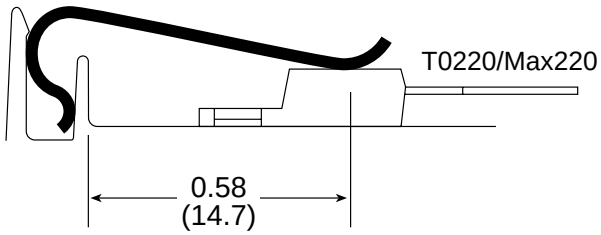
Max Clip01-H



H = High Force

032618 0.51 inch x 0.023 = 11.20 pounds

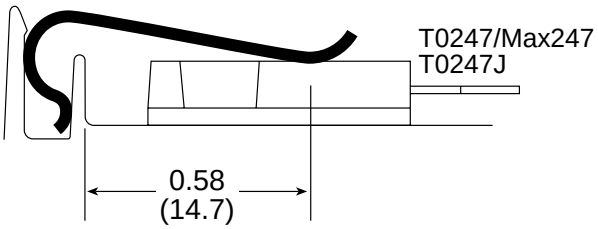
Max Clip02-H



H = High Force

032619 0.71 inch x 0.023 = 13.44 pounds

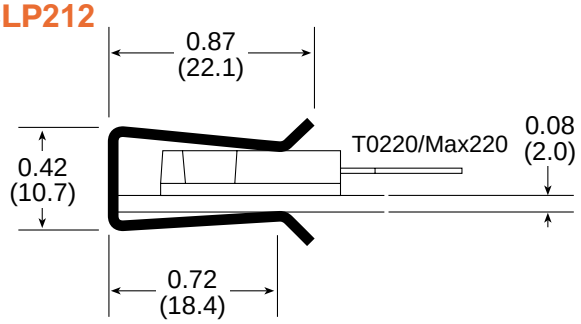
Max Clip03-H



H = High Force

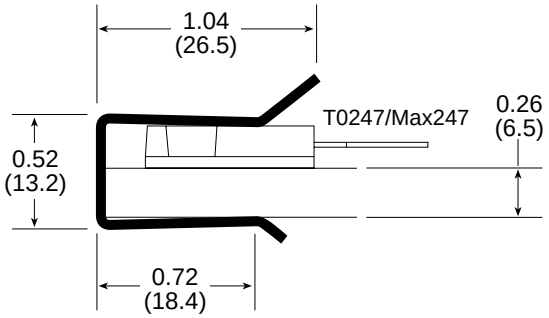
032791 0.40 inch x 0.020 = 4.70 pounds

CLP212



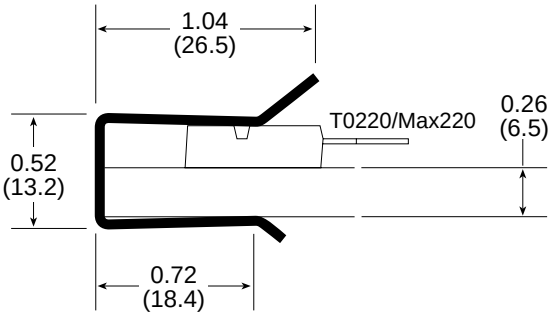
032620 0.59 inch x 0.020 = 8.06 pounds

CLP212M



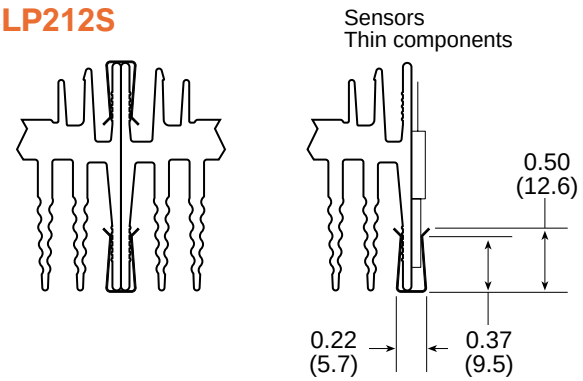
032621 0.39 inch x 0.020 = 4.70 pounds

CLP212P



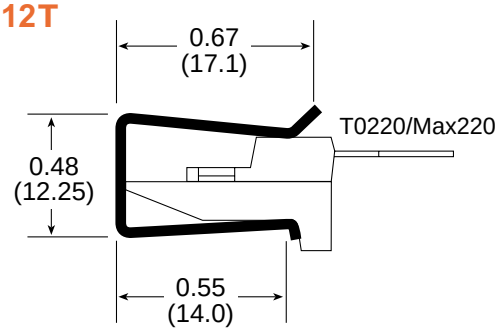
032622 0.28 inch x 0.020 = 4.48 pounds

CLP212S



032623 0.39 inch x 0.023 = 7.62 pounds

CLP212T



OVERVIEW: MAX CLIP SYSTEM™ CLIPS

Material: Special spring steel, nickel-plated

Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX01	5.15	0.39	0.020
MAX02	6.27	0.47	0.020
MAX03	8.06	0.59	0.020
MAX04	10.75	0.79	0.020

Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX01-H	13.44	0.39	0.028
MAX02-H	11.20	0.51	0.023
MAX03-H	13.44	0.71	0.023

Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX07	17.92	0.47	0.023

with screws

Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX08	26.88	0.71	0.023

with screws

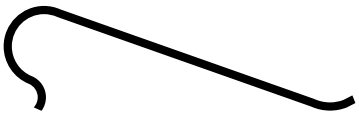
Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX09	10.08	0.39	0.020

short dip

Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX10	8.96	0.47	0.023
MAX12	5.60	0.24	0.023

long dip

Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX11	8.96	0.47	0.023

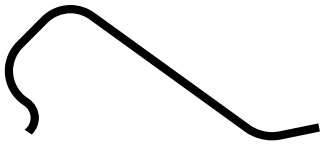


Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX13	8.96	0.67	0.020
MAX16 (MAX13 without Top Stop)			

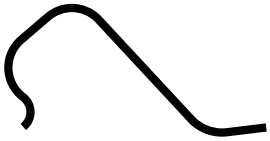
Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX14	4.48	0.51	0.020
MAX17 (MAX14 without Top Stop)			

Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX15	13.44	0.71	0.023

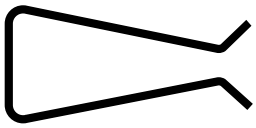
Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX20	11.20	0.47	0.023



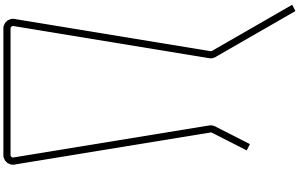
Clip	Force (pounds)	Width (inches)	Thickness (inches)
MAX23	16.35	0.71	0.023



Clip	Force (pounds)	Width (inches)	Thickness (inches)
CLP212	4.70	0.40	0.020

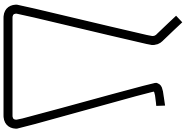


Clip	Force (pounds)	Width (inches)	Thickness (inches)
CLP212M	8.06	0.59	0.020
CLP212P	4.70	0.39	0.020



Clip	Force (pounds)	Width (inches)	Thickness (inches)
CLP212S	4.48	0.28	0.020

Clip	Force (pounds)	Width (inches)	Thickness (inches)
CLP212T	7.62	0.39	0.023



MAX EXTRUSION LIST

Aavid	PROFILE Thermalloy	Rthn °C/W	Rthf °C/W	Weight lb/ft (kg/m)	Base in (mm)	Height in (mm)	Perimeter in (mm)
78010	S505	1.45	0.39	1.66 (2.475)	1.34 (34.0)	2.95 (75.0)	37.36 (949)
78015	S506	2.46	0.65	0.93 (1.379)	1.06 (27.0)	1.97 (50.0)	19.69 (500)
78020	S507	3.02	0.84	0.83 (1.230)	1.18 (30.0)	1.85 (47.0)	14.65 (372)
78025	S508	3.10	1.02	0.66 (0.987)	1.54 (39.0)	1.24 (31.5)	12.20 (310)
78030	S509	1.10	0.36	2.30 (3.417)	2.36 (60.0)	2.36 (60.0)	39.45 (1002)
78035	S510	1.23	0.42	1.70 (2.521)	2.93 (74.5)	1.57 (40.0)	31.85 (809)
78040	S511	0.81	0.28	3.12 (4.636)	4.02 (102.0)	2.80 (71.2)	55.51 (1410)
78045	S512	2.12	0.64	1.07 (1.585)	1.57 (40.0)	1.57 (40.0)	18.74 (476)
78050	S513	0.63	0.25	2.70 (4.020)	3.23 (82.0)	2.17 (55.0)	50.39 (1280)
78060	S515	2.33	0.76	0.79 (1.177)	1.18 (30.0)	1.77 (45.0)	16.73 (425)
78065	* S516	2.15	0.73	0.33 (0.493)	0.79 (20.0)	1.18 (30.0)	11.14 (283)
78070	S517	1.55	0.41	1.73 (2.567)	1.57 (40.0)	2.95 (75.0)	30.83 (783)
78075	S518	1.71	0.57	1.10 (1.636)	1.50 (38.0)	2.13 (54.0)	22.91 (582)
78220	S520	2.49	0.74	1.11 (1.655)	1.18 (30.0)	2.36 (60.0)	19.21 (488)
78225	S521	n. a.	n. a.	1.18 (1.749)	0.91 (23.0)	1.77 (45.0)	7.01 (178)
78230	S522	n. a.	n. a.	0.93 (1.389)	1.10 (28.0)	1.77 (45.0)	8.35 (212)
78235	* S523	2.34	0.87	0.22 (0.324)	0.43 (10.9)	1.10 (28.0)	6.30 (160)
78240	* S524	1.74	0.58	0.42 (0.627)	0.87 (22.0)	1.38 (35.0)	12.72 (323)
78245	S526	2.29	0.56	1.12 (1.662)	1.06 (27.0)	2.36 (60.0)	23.46 (596)
78345	S527	1.66	0.49	1.48 (2.206)	1.54 (39.0)	2.68 (68.0)	26.38 (670)
78250	S528	1.42	0.52	1.44 (2.150)	2.20 (56.0)	2.36 (60.0)	24.92 (633)
78255	S529	n. a.	n. a.	0.46 (0.682)	1.06 (27.0)	1.06 (27.0)	6.06 (154)
78260	S530	n. a.	n. a.	0.08 (0.121)	0.45 (11.5)	0.41 (10.5)	2.36 (60)
78340	S532	2.37	0.66	0.99 (1.480)	1.06 (27.0)	2.17 (55.0)	19.96 (507)
78265	S533	4.12	1.63	0.32 (0.475)	0.83 (21.0)	1.12 (28.5)	7.48 (190)
78335	S546	6.34	2.38	0.21 (0.310)	1.19 (30.1)	0.49 (12.5)	5.47 (139)
78270	S547	n. a.	n. a.	0.63 (0.944)	1.06 (27.0)	1.16 (29.5)	6.18 (157)
78370	S549	3.20	1.62	0.38 (0.559)	1.15 (29.2)	1.18 (30.0)	7.20 (183)
78275	S550	2.35	0.67	1.19 (1.777)	1.25 (31.8)	2.31 (58.7)	19.02 (483)
78315	S552	1.06	0.34	2.11 (3.140)	1.89 (48.0)	3.15 (80.0)	39.76 (1010)

NOTES

* = Indian Chief

Rthn: Length = 5.91" (150 mm)
Black anodized
Ambient T = 40 ºC
Heat sink T = 110 ºC

Rthf: Air speed inlet tunnel = 6.6 ft/s (2 m/s)

MAX EXTRUSION LIST

Aavid	PROFILE Thermalloy	Rthn °C/W	Rthf °C/W	Weight lb/ft (kg/m)	Base in (mm)	Height in (mm)	Perimeter in (mm)
78215	S553	2.50	0.84	0.88 (1.31)	1.10 (28.0)	2.38 (60.5)	15.21 (386)
78210	S554	n. a.	n. a.	0.48 (0.711)	0.74 (18.9)	1.34 (34.0)	5.94 (151)
78205	S555	2.42	0.75	1.05 (1.563)	1.18 (30.0)	2.24 (57.0)	17.24 (438)
78200	S556	n. a.	n. a.	0.59 (0.874)	0.98 (25.0)	1.42 (36.0)	0.71 (18)
78195	S559	2.70	0.93	0.74 (1.096)	1.34 (34.0)	1.44 (36.6)	12.36 (314)
78190	S560	1.25	0.50	1.59 (2.363)	2.28 (58.0)	2.62 (66.5)	25.51 (648)
78185	S562	n. a.	n. a.	1.35 (2.015)	1.57 (40.0)	2.24 (57.0)	9.72 (247)
78110	SX96	0.05	0.02	3.24 (4.826)	6.10 (155.0)	3.35 (85.0)	50.87 (1292)
78080	SY54	0.10	0.04	1.17 (1.736)	1.06 (27.0)	2.36 (60.0)	23.78 (604)
78085	SY67	n. a.	n. a.	0.89 (1.317)	1.13 (28.7)	1.61 (41.0)	5.59 (142)
78105	SY73	0.04	0.02	4.09 (6.091)	8.11 (206.0)	3.54 (90.0)	60.12 (1527)
78090	SY76	n. a.	n. a.	0.56 (0.832)	0.67 (17.0)	1.47 (37.3)	5.63 (143)
78095	SY77	n. a.	n. a.	1.26 (1.881)	1.14 (29.0)	1.45 (36.8)	5.51 (140)
78295	SA06	0.09	0.03	1.46 (2.174)	1.38 (35.0)	2.36 (60.0)	15.28 (388)
78380	SA11	0.03	0.01	11.03 (16.413)	9.51 (241.5)	5.51 (140.0)	127.2 (3231)
78300	SA12	n. a.	n. a.	1.09 (1.623)	6.50 (165.0)	2.44 (62.0)	19.69 (500)
78280	SA15	0.13	0.08	0.50 (0.750)	0.91 (23.0)	1.50 (38.0)	6.54 (166)
78305	SA16	1.44	0.61	1.09 (1.623)	4.76 (120.8)	1.38 (35.0)	26.38 (670)
78310	SA17	1.45	0.60	1.03 (1.526)	5.80 (147.3)	0.55 (14.0)	24.72 (628)
78355	SA21	0.11	0.05	0.77 (1.145)	1.93 (49.0)	1.27 (32.3)	17.99 (457)
78180	SA22	n. a.	n. a.	1.34 (2.006)	3.94 (100.0)	1.18 (30.0)	15.20 (386)
78285	SA25	0.07	0.03	1.37 (2.041)	2.95 (75.0)	1.34 (34.0)	35.79 (909)
78360	SA30	0.05	0.03	2.21(3.283)	4.25 (108.0)	1.54 (39.0)	41.54 (1055)
78290	SA31	0.49	0.22	6.52 (9.698)	9.48 (240.8)	3.03 (77.0)	36.30 (922)
78385	SA34	n. a.	n. a.	2.88 (4.290)	9.45 (240.0)	2.36 (60.0)	35.99 (914)
78350	SA36	0.06	0.02	2.32 (3.450)	1.95 (49.5)	3.37 (85.5)	43.66 (1109)
78365	SA37	0.05	0.02	2.43 (3.611)	1.57 (40.0)	3.58 (91.0)	41.85 (1063)
78390	SA39	0.03	0.01	4.10 (6.100)	7.09 (180.0)	2.01 (51.0)	68.4 (1737)
78395	SA40	0.05	0.02	4.09 (6.083)	3.07 (78.0)	3.23 (82.0)	39.06 (992)
78400	SA41	n. a.	n. a.	2.07 (3.083)	8.07 (205.0)	2.05 (52.0)	31.57 (802)

NOTES

* = Indian Chief

Rthn: Length = 5.91" (150 mm)
Black anodized
Ambient T = 40 ºC
Heat sink T = 110 ºC

Rthf: Air speed inlet tunnel = 6.6 ft/s (2 m/s)

Rthn = Thermal Resistance in Natural Convection
Rthf = Thermal Resistance in Forced Convection