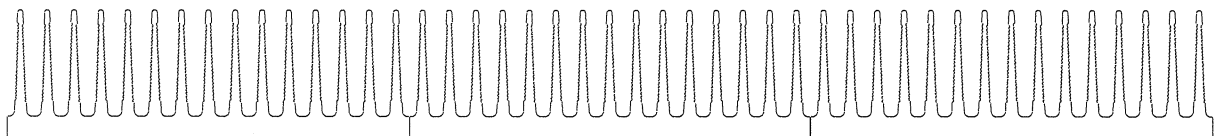
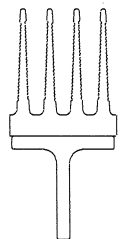
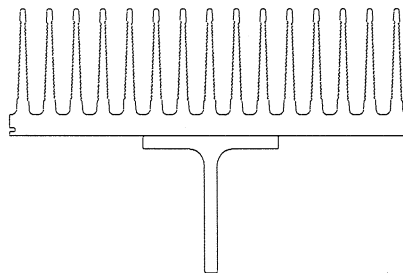
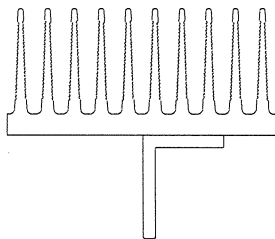
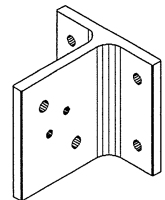
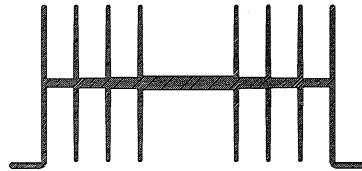
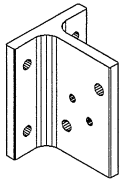


HEATSINK

CATALOGUE

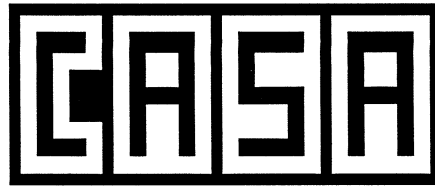


CASA Modular Systems

Phone - (64-4) 568 7277 FAX - (64-4) 568 5161

79 Fitzherbert Street
P.O. Box 38-828
PETONE, Wellington

DRAFT



General Terms of Business

Introduction

17/11/93

In the absence of other written terms (or contractual conditions) the following general terms and conditions of business shall apply in respect of goods **manufactured** by CASA Modular Systems.

QUALITY - All goods manufactured by **CASA** are deemed to be suitable for the purposes for which they are designed, will perform within practical engineering limits and the specifications described on **CASA's** published literature.

WARRANTY - Within a period of 12 months from the date of supply, any goods which prove to be defective will be repaired or replaced **FREE OF CHARGE** (fair wear and tear accepted). Return, and/or, replacement of goods will be at the discretion of **CASA** and subject to our inspection.

RETURNS - Any goods returned under warranty must be accompanied by proof of purchase (copy of our invoice or sale docket), an adequate description of the fault, suitably packed and consigned **freight pre-paid** to our office.

LIABILITY - **CASA's** liability is limited to one of the following :-

- a) the **repair** (by our staff on our premises, or by our duly appointed agent) or
- b) the **replacement** with new or substitute goods or (failing the availability of effective repair or replacement)
- c) the **refund** of the current value of the goods, not exceeding the original purchase price.

OWNERSHIP - Until full payment is received, legal title to goods supplied resides with CASA Modular Systems (or its appointed Agents).

PAYMENT - Unless an "**Approved Credit Account**" already exists, payment in full must be made prior to delivery. (Applications for CREDIT Terms require to be made on CASA's special form which will be supplied upon request)

PRICES - Published prices are subject to change without notice. Unless prices are established by written quotation the prices charged will be those in effect at the date of dispatch.

GENERAL - Should conditions arise which are not covered by the above interpretation will be made according to current N.Z. Legislation.



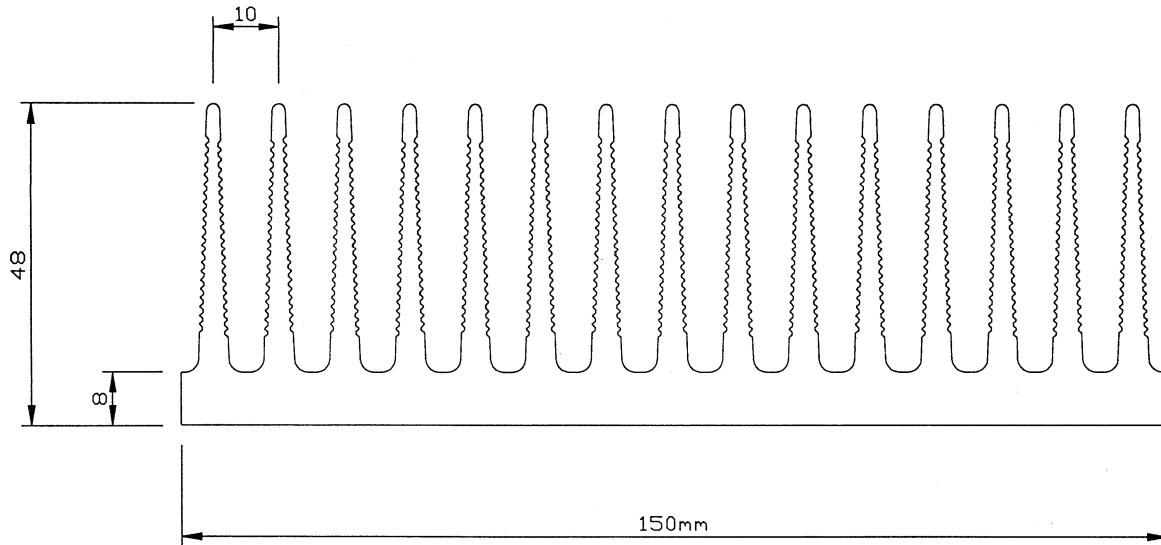
DATA SHEET

P.O. Box 38-828
PETONE, Wellington
Phone - (64-4) 568 7277
FAX - (64-4) 568 5161

Date - 11th November, 1992

Ref - HS-4159.FRP

Type 4159 Heatsink



This proprietary FLAT-BACK Heatsink has been designed to satisfy applications where a high thermal mass (high transient dissipation) is required together with a flat mounting surface for RF, Audio, Industrial or other Semiconductor Power Devices. Custom machining can be undertaken by CASA to suit special requirements. "TEE" adaptors are available pre-punched for TO3 or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

Specification Details:-

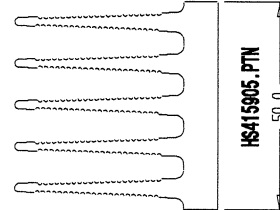
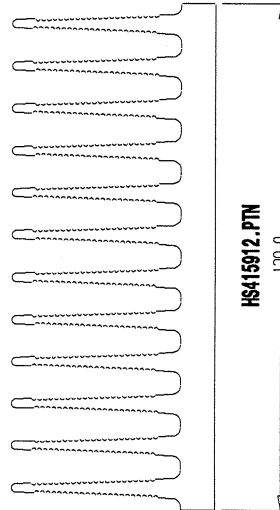
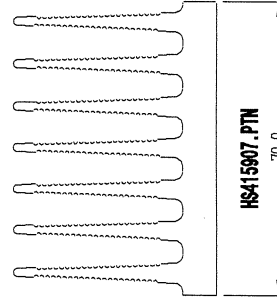
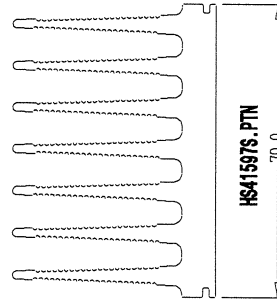
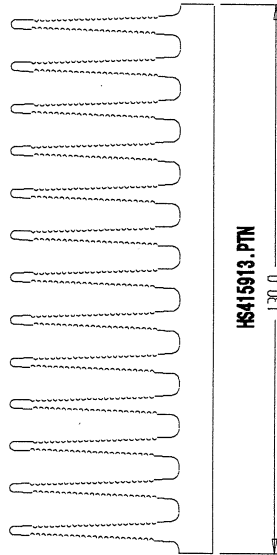
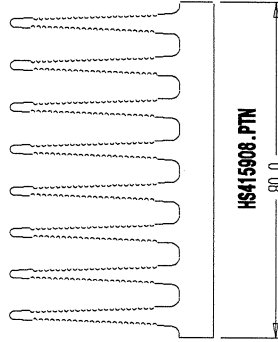
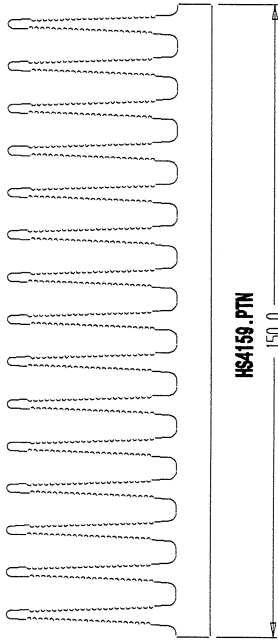
Standard Lengths:-	75mm (2 unit) 120mm (3 unit) 165mm (4 unit) 210mm (5 unit)
Special Lengths to order:-	50mm-2500mm
Cutting Tolerance:-	+ /- 0.1mm (to 500mm)
Finishes:- (full deburring of all holes & edges is standard)	Natural Black Anodized
Fixing Holes:-	Tapped M4/M5 etc (Custom mountings)
Thermal Rating:- (measured on 75mm sample, natural finish)	est 0.9°C/Watt @ 25°C ambient temperature
Weight:-	8.036Kg/metre
Periphery:- (multiply by length for surface area)	1733.7mm
Crosssection:- (sectional area of extrusion)	2965.1sq mm
Material:- (Extruded Aluminum Alloy to BS-1474)	AA6063-T5

Part Number:- HS-4159-xx-F(special adder/suffix)

Please compose a Part Number according to this system and use on your official order.

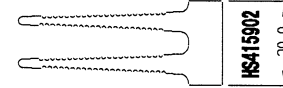
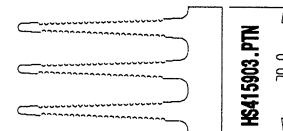
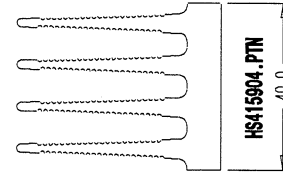
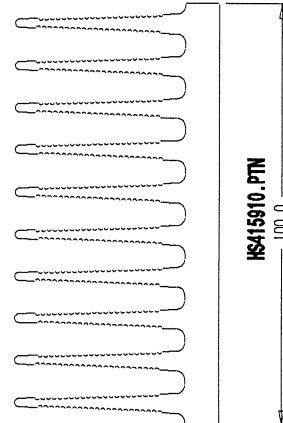
HS- Prefix to indicate "HEATSINK" or related products or accessories.
4159- CASA's EXTRUSION or TYPE / Reference number.
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N = Natural, B = Black Anodized)
(-----) Special adder or suffix for brief customer reference detail.





Slotted Detail to suit
CASA CornerBars CB10 & CB19

NOTE - These typical examples of TRIMS from the basic HS-4159 CASA Heatsink illustrate just a few options that CASA can manufacture. CASA will be pleased to discuss your specific needs.
Send details to CASA Sales/Engineering Staff.

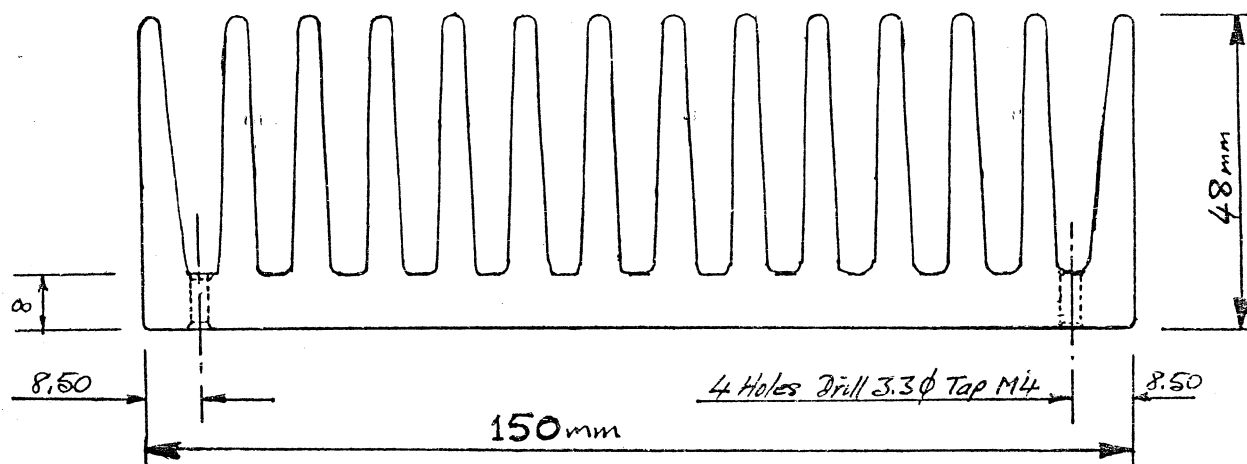


JOB No.		23??	
CUSTOMER : CASA Modular Systems		DRAWING Reference No. ISSUE	
DESCRIPTION : HS4159 Heatsink VARIATIONS		A4 HS4159TR A	
P.O. BOX 38-228 WELLINGTON, NEW ZEALAND		DRAWN : J.W.D.	
TELEPHONE : 06-433 8872		APPROVED : J.W.D.	
FAX : 06-433 8872		DATE : 10/11/83	
P.O. BOX 38-228 WELLINGTON, NEW ZEALAND		COPYRIGHT : CASA Modular Systems	
		ALL RIGHTS RESERVED	

Date - 6th October, 1992

Ref - HS-10446.FRP

Type 10446 Heatsink



This proprietary FLAT-BACK Heatsink has been designed to satisfy applications where a high thermal mass (high transient dissipation) is required together with a flat mounting surface for RF, Audio, Industrial or other Semiconductor Power Devices. Custom machining can be undertaken by CASA to suit special requirements. "TEE" adaptors are available pre-punched for TO3 or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs, custom machining and any other variations or features which you may require.

Specification Details:-

Standard Lengths:-

75mm (2 unit)
 120mm (3 unit)
 165mm (4 unit)
 210mm (5 unit)
 50mm-2500mm
 + /- 0.1mm (to 500mm)

Special Lengths to order:-

Cutting Tolerance:-

Finishes:-

(full deburring of all holes & edges is standard)

Fixing Holes:-

Natural
 Black Anodized
 Tapped M4/M5 etc
 (Custom mountings)

Thermal Rating:-

(measured on 75mm sample, natural finish)

Weight:-

Periphery:- (multiply by length for surface area)

Crosssection:- (sectional area of extrusion)

Material:- (Extruded Aluminum Alloy to BS-1474)

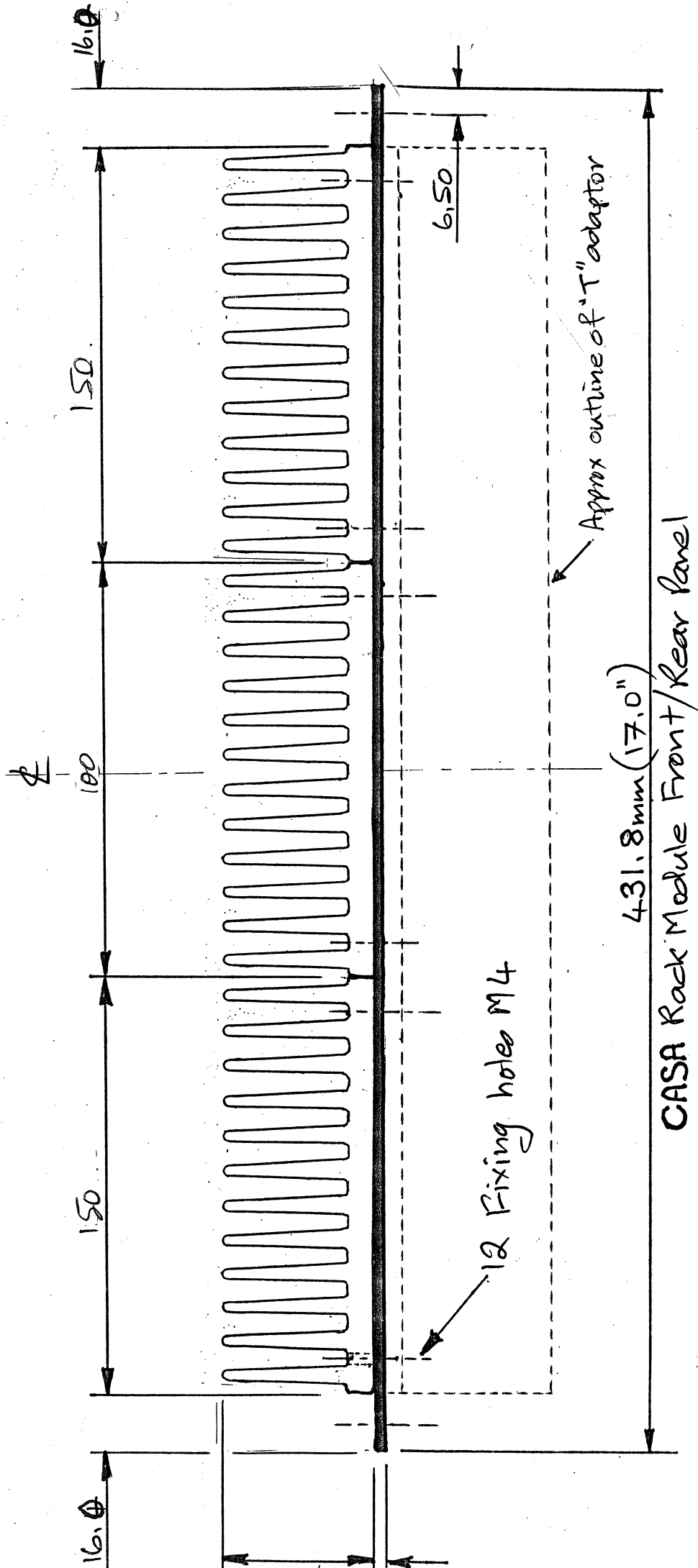
1°C/Watt @ 25°C
 ambient temperature
 8.988Kg/metre
 1399mm
 3300sq mm
 AA6063-T5

Part Number:- HS-10446-xx-F(special adder/suffix)

Please compose a Part Number according to this system and use on your official order.

HS- Prefix to indicate "HEATSINK" or related products or accessories.
10446- CASA's EXTRUSION or TYPE / Reference number.
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N = Natural, B = Black Anodized)
(-----) Special adder or suffix for brief customer reference detail.

Drawn - 5/5/92
By - A.U.D.



Arrangement drawing for:-
Custom HS-1044-6-XX (X133) HEAT SINK
for Front or Rear Module Fixing



DATA SHEET

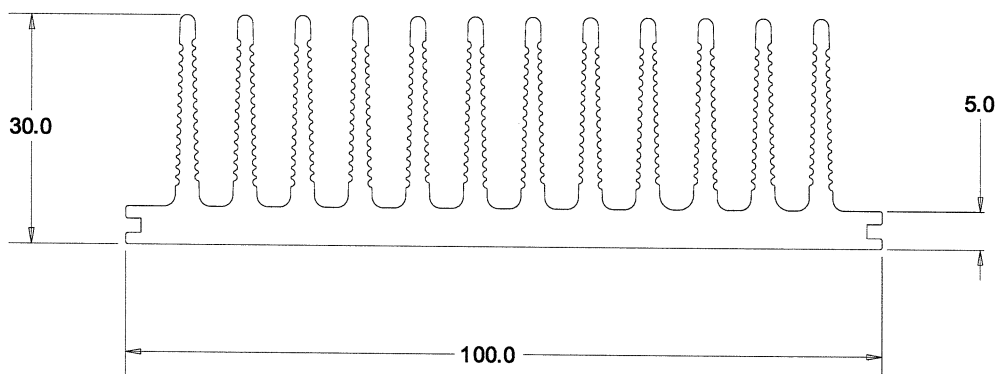
CASA Modular Systems Ltd
P.O. Box 38-828,
Wellington
Phone - (64-4) 9393 777
FAX - (64-4) 9393 778

Date - 17th June, 2000

E-Mail sales@casa.co.nz

Ref - HS-5048.FRP

Type 5048 Heatsink



This proprietary FLAT-BACK Heatsink has been designed to satisfy applications where a MEDIUM thermal mass (transient dissipation) is required together with a flat mounting surface for RF, Audio, Industrial or other Semiconductor Power Devices

Grooves are provided at each side to provide a sliding fit to CASA's Corner Bar Extrusions CB10, CB19 (and the proposed CB20) details of which are contained on separate data sheets. These grooves may also be used for fixing cleats or covers etc. Matching grooves can be machined in the ends when required.

Custom machining can be undertaken by CASA to suit special requirements. "TEE" adaptors are available pre-punched for TO3 or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.).

Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

Specification Details:-

➔	Standard Lengths:	75mm (2 unit)
		120mm (3 unit)
		165mm (4 unit)
		210mm (5 unit)
		50mm-2500mm
➔	Special Lengths to order:	+/- 0.1mm (to 500mm)
➔	Cutting Tolerance:	
➔	Finishes:	Natural
		Black Anodized
➔	(full deburring of all holes & edges is standard)	
➔	Fixing Holes:	Tapped M3/M4/M5 etc.
		(Custom mountings)
➔	Thermal Rating:	est. 1.9°C/Watt @ 25°C
		ambient temperature
➔	(measured on 75mm sample, convection cooled with fins vertical)	
➔	Weight:	3.102Kg/metre
➔	Periphery: (multiply by length for surface area)	927.2mm
➔	Cross-section: (sectional area of extrusion)	1144.sq. mm
➔	Material: (Extruded Aluminum Alloy to BS-1474)	AA6063-T5

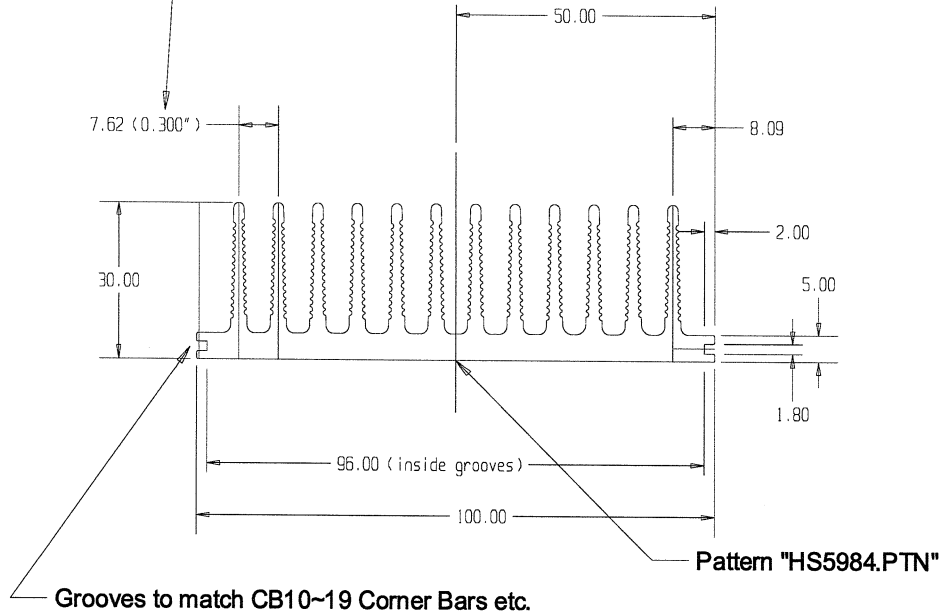
Intelligent Part Number:- HS-5084-Tz-xx-F(special adder/suffix)

Please compose a Part Number according to this system and use on your official order.

HS-	Prefix to indicate "HEATSINK" or related products or accessories.
5084-	CASA's EXTRUSION or TYPE / Reference number.
Tz-	Optional Trim to custom size - where "z" = number of fins.
xx-	Overall cut LENGTH in millimetres.
F-	The FINISH applied to the part (N=Natural, B=Black Anodized)
(-----)	Special adder or suffix for brief customer reference detail.



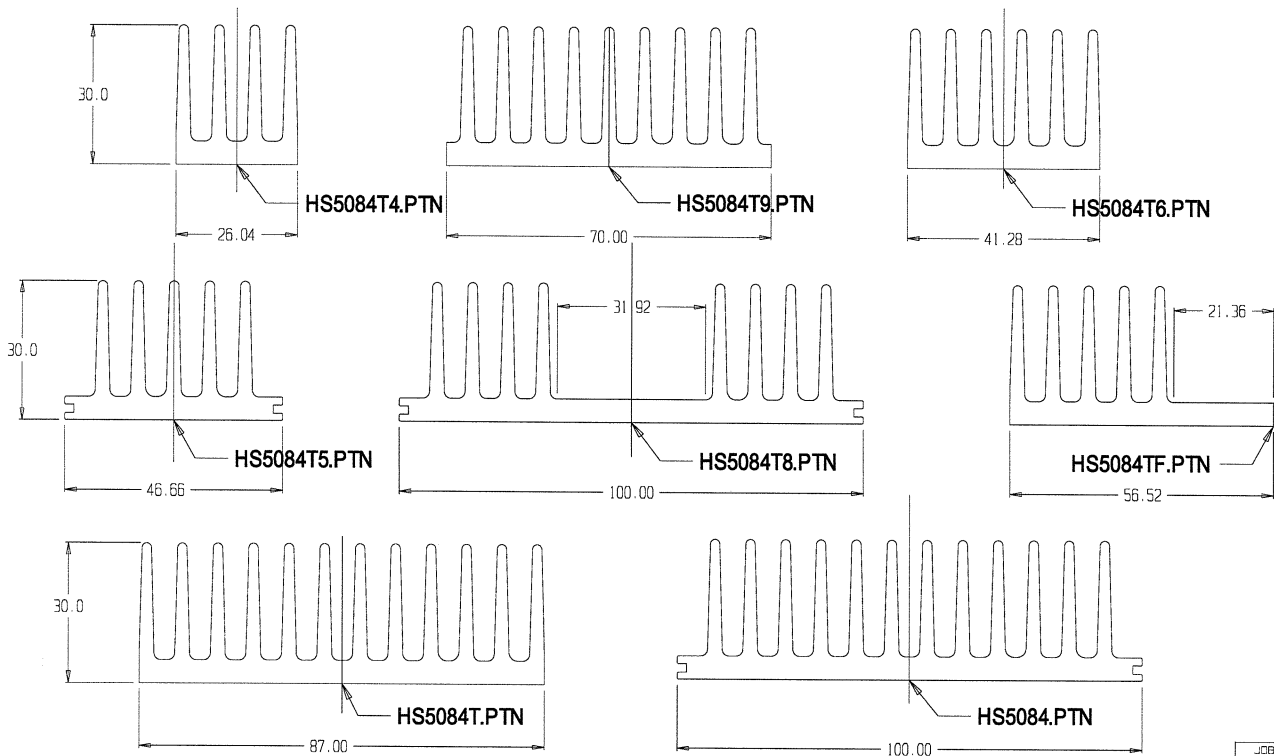
Fin Pitch = 0.300" to match
easy PCB layout etc.



MATERIAL
Extrusion
No UA2651
ALLOY
6063-T5
EST. AREA
1144.9 mm
EST. WEIGHT
3.102 kg/m
EST. PERIPHERY
EXT: 927 mm
TOT: 927 mm
TOLERANCE
0.00mm ±0.1mm
00.00mm ±0.25mm
0000mm ±0.5mm
0-500mm ±0.1mm
> 500mm ±0.5mm
BS1474:1987
APPLIES UNLESS OTHERWISE SPECIFIED
JOB No.
26xx

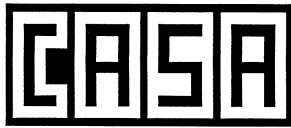
CASA Modular Systems	CUSTOMER : CASA Modular Systems	SIZE	DRAWING Reference No.	ISSUE
P.O. BOX 38-828, WELLINGTON, NEW ZEALAND	DESCRIPTION : HEATSINK 100x30 Flat Back	A4	HS-5084	A
TELEPHONE : (64-4) 9393 777	DRAWN : A.W.D	DATE : 07/02/00	APPROVED : ?	DWG. SCALE : 1:1
FACSIMILE : (64-4) 9393 778				© COPYRIGHT : CASA Modular Systems ALL RIGHTS RESERVED

NOTE - Many other variations on these themes can be provided.



CASA Modular Systems	CUSTOMER : CASA Modular Systems	SIZE	DRAWING Reference No.	ISSUE
P.O. BOX 38-828, WELLINGTON, NEW ZEALAND	DESCRIPTION : HS-5084 Trim Variations	A4	HS-5084T	A
TELEPHONE : (64-4) 5887 277	DRAWN : A.W.D	DATE : 16/06/00	APPROVED : ?	DWG. SCALE : 1:1
FACSIMILE : (64-4) 5885 161				© COPYRIGHT : CASA Modular Systems ALL RIGHTS RESERVED

JOB No.
24xx



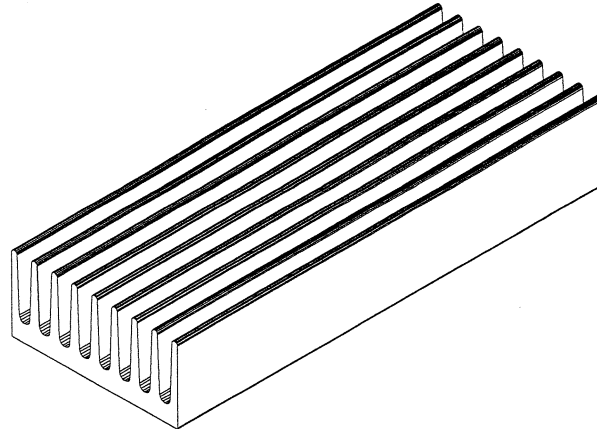
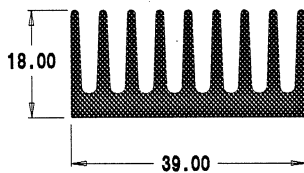
DATA SHEET

P.O. Box 38-828
PETONE, Wellington
Phone - (64-4) 568 7277
FAX - (64-4) 568 5161

Date - 24th March, 1994

Ref - HS-2068.FRP

Type 2068 Heatsink



This proprietary FLAT-BACK Heatsink has been designed to satisfy applications where a modest thermal mass (moderate dissipation) is required together with a flat mounting surface for RF, Audio, Industrial or other Semiconductor Power Devices.

Custom machining can be undertaken by CASA to suit special requirements (please enquire giving details of desired features, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths or TRIMs of the basic profile (in any quantity 1-10,000) can be quickly and economically processed. See reverse of this leaflet for suggestions.

CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

Specification Details:-

→	Standard Lengths:-	75mm (2 unit) 120mm (3 unit) 165mm (4 unit) 210mm (5 unit) 25mm-2500mm
→	Special Lengths to order:-	25mm-2500mm
→	Cutting Tolerance:-	+/- 0.1mm (to 500mm)
→	Finishes:- (full deburring of all holes & edges is standard)	Natural Black Anodized
→	Fixing Holes:-	Tapped M3/M4 etc (Custom mountings)
→	Thermal Rating:- (measured on 75mm sample, natural finish)	est 4.5°C/Watt @ 25°C ambient temperature
→	Weight:-	1.025Kg/metre
→	Periphery:- (multiply by length for surface area)	317mm
→	Crosssection:- (sectional area of extrusion)	378sq mm
→	Material:- (Extruded Aluminum Alloy to BS-1474)	AA6063-T5

Part Number:- HS-2068-xx-F(special adder/suffix)

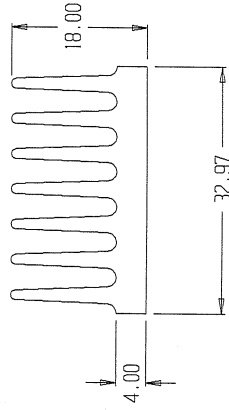
Please compose a Part Number according to this system and use on your official order.

HS- Prefix to indicate "HEATSINK" or related products or accessories.
2068- CASA's EXTRUSION or TYPE / Reference number.
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N=Natural, B=Black Anodized)
(-----) Special adder or suffix for brief customer reference detail.

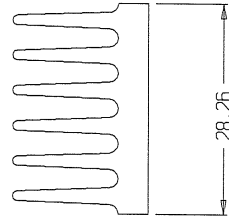


Flat Back HEATSINK Type HS-2068 and Variants.

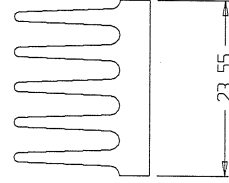
HS2068T7.PTN



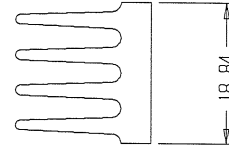
HS2068T6.PTN



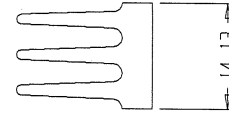
HS2068T5.PTN



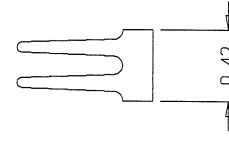
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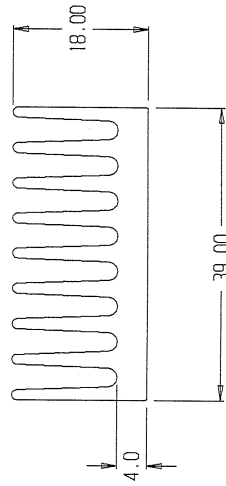
HS2068T3.PTN



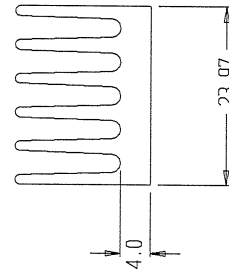
HS2068T2.PTN



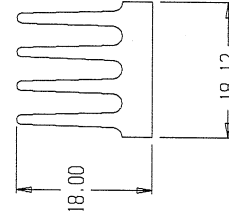
HS2068.PTN



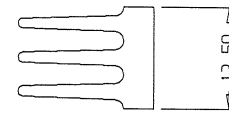
HS2069.PTN



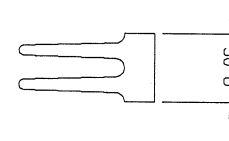
HS2069T4.PTN



HS2069T3.PTN



HS2069T2.PTN



NOTE - Adjustments in the width can be readily provided by gauging/trimming on our precision dimensioning saw.

HEATSINK Type HS-2069 & Trims.

Please send details of your exact requirements for sample production.

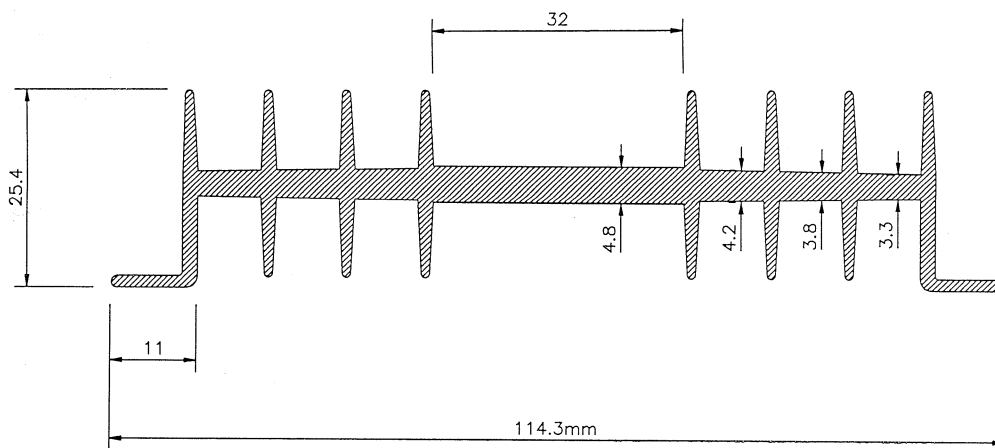
JOB No.
24xx

CASA Modular Systems P.O. BOX 38-828, WELLINGTON, NEW ZEALAND TELEPHONE : (64-4) 5687 277 FACSIMILE : (64-4) 5685 161		CUSTOMER : CASA Modular Systems DESCRIPTION : MAS HEATSINK & Trims		SIZE A4	DRAWING Reference No. HS-2068T	ISSUE A
DRAWN : A.W.D.	DATE : 12/03/94	APPROVED : ?	DWG. SCALE : 1:1	© COPYRIGHT : CASA Modular Systems ALL RIGHTS RESERVED		

Date - 14th November, 1992

Ref - HS-1635.FRP

Type 1635 Heatsink



This LOW PROFILE Heatsink has been designed to satisfy general purpose applications for MEDIUM DUTY Audio, Industrial or other Semiconductor Medium Power Devices.

Custom machining can be undertaken by CASA to suit special requirements. STANDARD Heatsinks are available pre-punched for TO3 devices or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

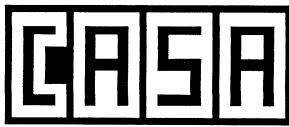
Specification Details:-

→ Standard Lengths:-	50mm + 75mm (2 unit) 120mm (3 unit) 165mm (4 unit) 210mm (5 unit) 25mm-2500mm
→ Special Lengths to order:-	25mm-2500mm
→ Cutting Tolerance:-	+/- 0.1mm (to 500mm)
→ Finishes:- (full deburring of all holes & edges is standard)	Natural Black Anodized
→ Fixing Holes:-	Holes or Slots etc (Custom mountings)
→ Thermal Rating:- (measured on 75mm sample, natural finish)	est 2.4°C/Watt @ 25°C ambient temperature
→ Weight:-	1.828Kg/metre
→ Periphery:- (multiply by length for surface area)	541.9mm
→ Crosssection:- (sectional area of extrusion)	674.6sq mm
→ Material:- (Extruded Aluminum Alloy to BS-1474)	AA6063-T5

Part Number:- HS-1635-xx-F(special adder/suffix)

Please compose a Part Number according to this system and use on your official order.

HS- Prefix to indicate "HEATSINK" or related products or accessories.
1635- CASA's EXTRUSION or TYPE / Reference number.
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N= Natural, B= Black Anodized)
(-----) Special adder or suffix for brief customer reference detail.



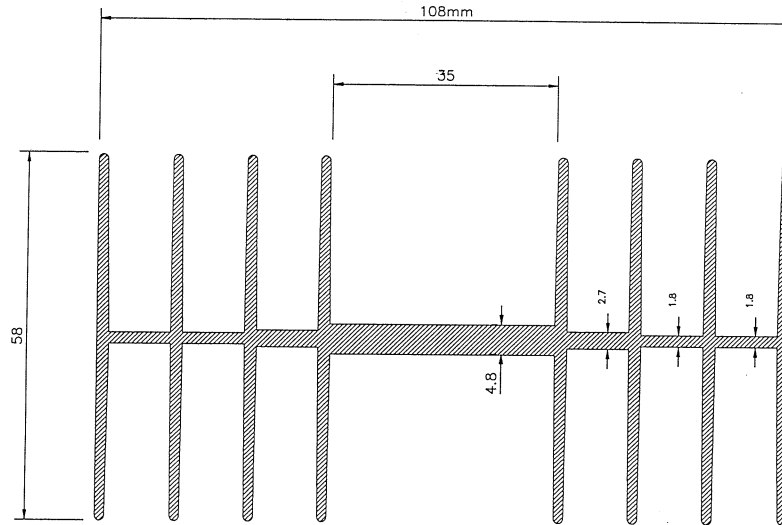
DATA SHEET

P.O. Box 38-828
PETONE, Wellington
Phone - (64-4) 568 7277
FAX - (64-4) 568 5161

Date - 15th November, 1992

Ref - HS-1632.FRP

Type 1632 Heatsink



This Heatsink has been designed to satisfy general purpose applications for MEDIUM DUTY Audio, Industrial or other Semiconductor Medium Power Devices.

Custom machining can be undertaken by CASA to suit special requirements. STANDARD Heatsinks are available pre-punched for TO3 devices or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

Specification Details:-

➔ Standard Lengths:-	50mm + 75mm (2 unit) 120mm (3 unit) 165mm (4 unit) 210mm (5 unit) 25mm-2500mm
➔ Special Lengths to order:-	25mm-2500mm
➔ Cutting Tolerance:-	+ /- 0.1mm (to 500mm)
➔ Finishes:- (full deburring of all holes & edges is standard)	Natural Black Anodized
➔ Fixing Holes:-	Holes or Slots etc (Custom mountings)
➔ Thermal Rating:- (measured on 75mm sample, natural finish)	est 1.6°C/Watt @ 25°C ambient temperature
➔ Weight:-	2.915Kg/metre
➔ Periphery:- (multiply by length for surface area)	1092.5mm
➔ Crossection:- (sectional area of extrusion)	1075.8sq mm
➔ Material:- (Extruded Aluminum Alloy to BS-1474)	AA6063-T5

Part Number:- HS-1632-xx-F(special adder/suffix)

Please compose a Part Number according to this system and use on your official order.

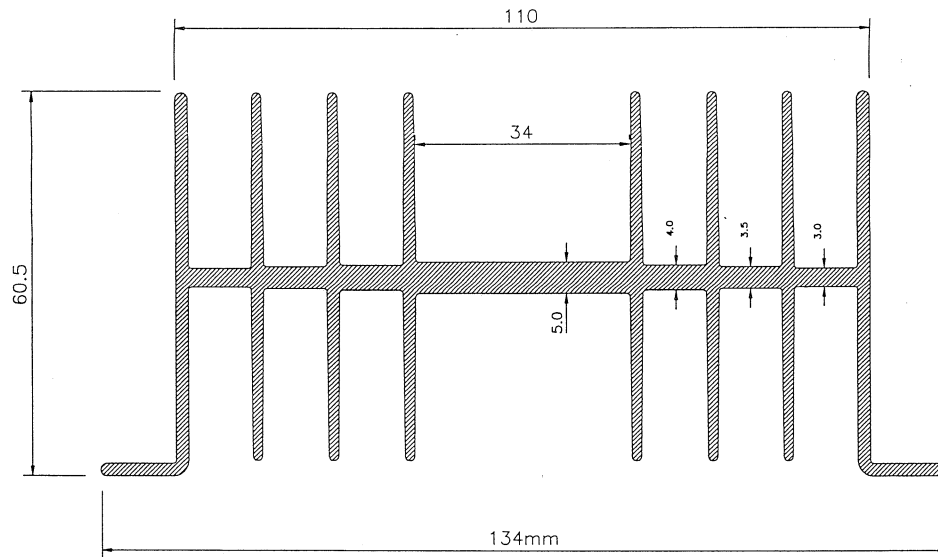
HS- Prefix to indicate "HEATSINK" or related products or accessories.
1632- CASA's EXTRUSION or TYPE / Reference number.
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N = Natural, B = Black Anodized)
(-----) Special adder or suffix for brief customer reference detail.



Date - 15th November, 1992

Ref - HS-1633.FRP

Type 1633 Heatsink



This TRADITIONAL PROFILE Heatsink has been designed to satisfy general purpose applications for MEDIUM DUTY Audio, Industrial or other Semiconductor Medium Power Devices.

Custom machining can be undertaken by CASA to suit special requirements. STANDARD Heatsinks are available pre-punched for TO3 devices or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

Specification Details:-

→ Standard Lengths:-	50mm + 75mm (2 unit) 120mm (3 unit) 165mm (4 unit) 210mm (5 unit)
→ Special Lengths to order:-	50mm-2500mm
→ Cutting Tolerance:-	+/- 0.1mm (to 500mm)
→ Finishes:- (full deburring of all holes & edges is standard)	Natural Black Anodized
→ Fixing Holes:-	Holes or Slots etc (Custom mountings)
→ Thermal Rating:- (measured on 75mm sample, natural finish)	est 1.4°C/Watt @ 25°C ambient temperature
→ Weight:-	3.467Kg/metre
→ Periphery:- (multiply by length for surface area)	1129.8mm
→ Crosssection:- (sectional area of extrusion)	1279.5sq mm
→ Material:- (Extruded Aluminum Alloy to BS-1474)	AA6063-T5

Part Number:- HS-1633-xx-F(special adder/suffix)

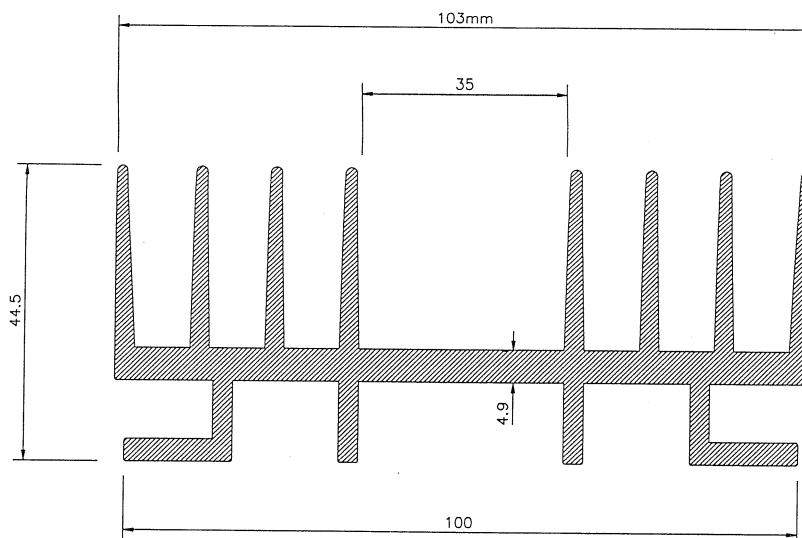
Please compose a Part Number according to this system and use on your official order.

HS- Prefix to indicate "HEATSINK" or related products or accessories.
1633- CASA's EXTRUSION or TYPE / Reference number.
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N= Natural, B= Black Anodized)
(-----) Special adder or suffix for brief customer reference detail.

Date - 15th November, 1992

Ref - HS-1634.FRP

Type 1634 Heatsink



This DOUBLE SIDED Heatsink with internal fixing flanges/feet has been designed to satisfy general purpose applications for MEDIUM DUTY Audio, Industrial or other Semiconductor Medium Power Devices.

Custom machining can be undertaken by CASA to suit special requirements. STANDARD Heatsinks are available pre-punched for TO3 devices or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

Specification Details:-

→ Standard Lengths:-	50mm + 75mm (2 unit) 120mm (3 unit) 165mm (4 unit) 210mm (5 unit) 25mm-2500mm
→ Special Lengths to order:-	25mm-2500mm
→ Cutting Tolerance:-	+/- 0.1mm (to 500mm)
→ Finishes:- (full deburring of all holes & edges is standard)	Natural Black Anodized
→ Fixing Holes:-	Holes or Slots etc (Custom mountings)
→ Thermal Rating:- (measured on 75mm sample, natural finish)	est 2.2°C/Watt @ 25°C ambient temperature
→ Weight:-	3.33Kg/metre
→ Periphery:- (multiply by length for surface area)	788.7mm
→ Crossection:- (sectional area of extrusion)	1228.7sq mm
→ Material:- (Extruded Aluminum Alloy to BS-1474)	AA6063-T5

Part Number:- HS-1634-xx-F(special adder/suffix)

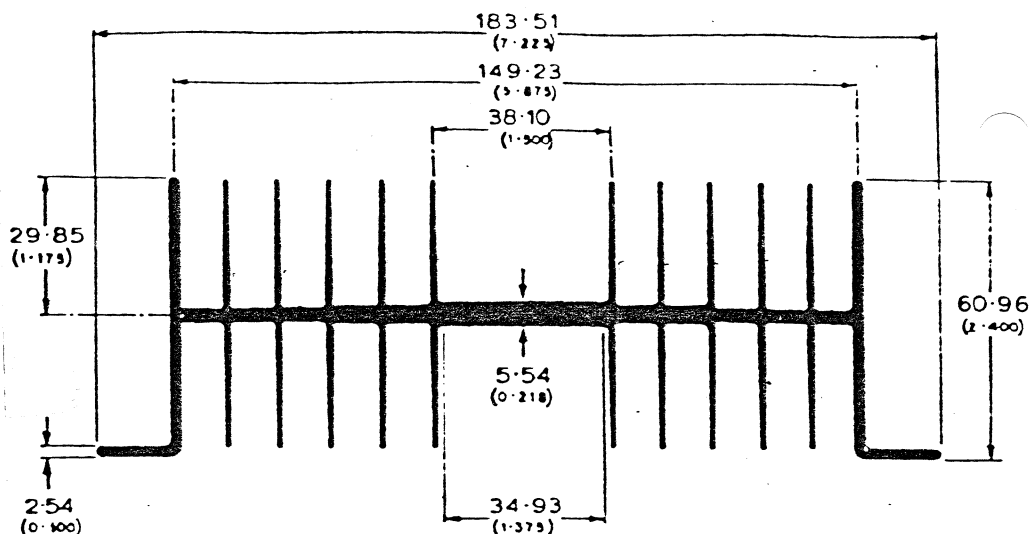
Please compose a Part Number according to this system and use on your official order.

HS- Prefix to indicate "HEATSINK" or related products or accessories.
1634- CASA's EXTRUSION or TYPE / Reference number.
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N = Natural, B = Black Anodized)
(-----) Special adder or suffix for brief customer reference detail.

Date - 15th November, 1992

Ref - HS-55D.FRP

Type 55D Heatsink



This DOUBLE SIDED Heatsink (Designed by Philips Electrica; Ind) will satisfy many general purpose applications for MEDIUM DUTY Audio, Industrial or other Semiconductor Medium Power Devices.

Custom machining can be undertaken by CASA to suit special requirements. STANDARD Heatsinks are available pre-punched for TO3 devices or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

Specification Details:-

Standard Lengths:-

50mm + 75mm (2 unit)
 120mm (3 unit)
 165mm (4 unit)
 210mm (5 unit)

Special Lengths to order:-

25mm-2500mm

Cutting Tolerance:-

+/- 0.1mm (to 500mm)

Finishes:-

Natural

(full deburring of all holes & edges is standard)

Black Anodized

Fixing Holes:-

Holes or Slots etc
 (Custom mountings)

Thermal Rating:-

(measured on 75mm sample, natural finish)

est 1.5°C/Watt @ 25°C
 ambient temperature

Weight:-

5.0Kg/metre

Periphery:- (multiply by length for surface area)

est 1800mm

Crosssection:- (sectional area of extrusion)

xxxxsq mm

Material:- (Extruded Aluminum Alloy to BS-1474)

AA6063-T5

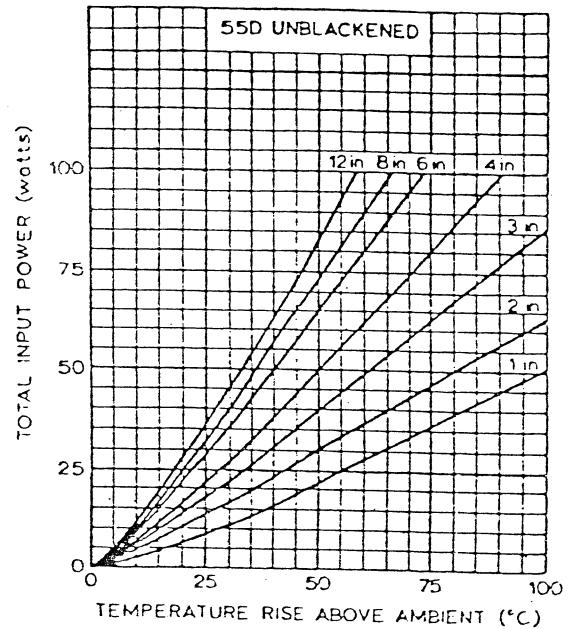
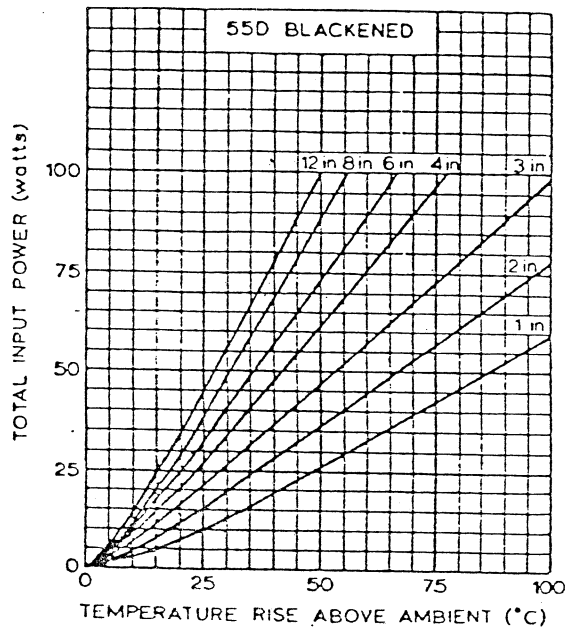
Part Number:- HS-55D-xx-F(special adder/suffix)

Please compose a Part Number according to this system and use on your official order.

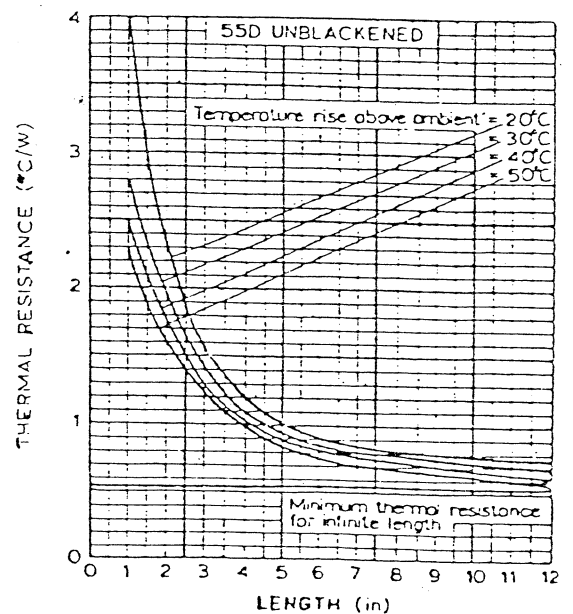
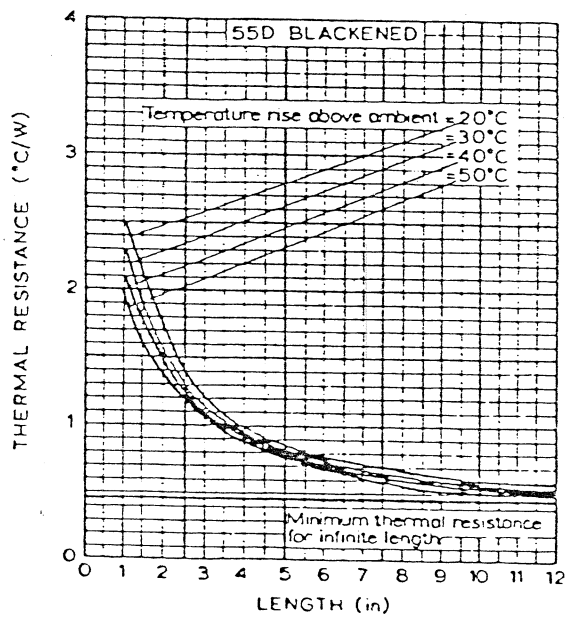
HS- Prefix to indicate "HEATSINK" or related products or accessories.
55D- CASA's EXTRUSION or TYPE / Reference number.
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N = Natural, B = Black Anodized)
(-----) Special adder or suffix for brief customer reference detail.

Technical Information

Heatsink Type 55D.



Total input power versus rise above ambient temperature for various lengths of extrusion with natural convection cooling.



Thermal resistance versus extrusion length, for various rises above ambient temperature and with natural convection cooling.



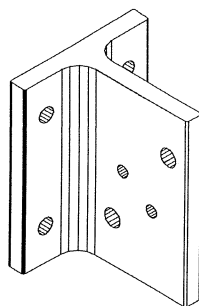
DATA SHEET

P.O. Box 38-828
PETONE, Wellington
Phone - (64-4) 568 7277
FAX - (64-4) 568 5161

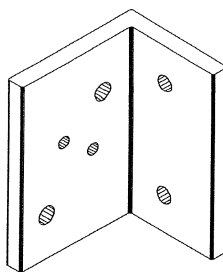
Date - 12th November, 1993

Ref - HS-ADAPT.FRP

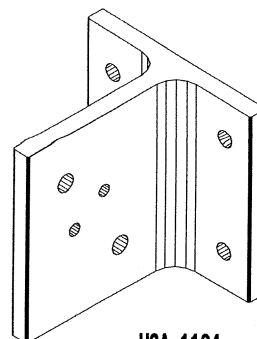
Heatsink ADAPTORS



HSA-293



HSA-5743



HSA-1184

The above illustrate some examples of CASA's propriety Heatsink ADAPTORS which have been designed to achieve efficient thermal transfer between Power Semiconductors on to CASA's Flatback Heatsinks, Panels or External heat dissipating devices etc. Typical applications include RF, Audio, Industrial or other Semiconductor Power Equipments.

Custom machining can be undertaken by CASA to suit special requirements. A limited range of standard adaptors are available pre-punched for TO3 or manufactured to suit other packages and Customer special needs (please enquire giving details of desired features and facilities, quantities etc.). Standard STOCK lengths are chosen to match the Rear Panel Heights of CASA Rack Mounting Modules. Other lengths (in any quantity 1-10,000) can be quickly and economically processed. CASA has 20 years experience in professional quality Heatsink manufacturing and is happy to discuss adaptations of CASA standard extrusions, new designs and any other variations or features which you may require.

Specification Details:-

Standard Lengths:-

50mm (2 unit)
100mm (3 unit)
150mm (4 unit)
200mm (5 unit)

Special Lengths to order:-

50mm-2500mm

Cutting Tolerance:-

+ /- 0.1mm (to 500mm)

Finishes:-

Natural

(full deburring of all holes & edges is standard)

Black Anodized

Fixing Holes:-

4.3mm or M4/M5 etc
(Custom mountings)

Thermal Rating:-

(measured on 50mm sample, natural finish)

est 0.X°C/Watt @ 25°C
ambient temperature

Weight:-

x.x Kg/metre

Periphery:- (multiply by length for surface area)

xx mm

Crosssection:- (sectional area of extrusion)

xx sq mm

Material:- (Extruded Aluminum Alloy to BS-1474)

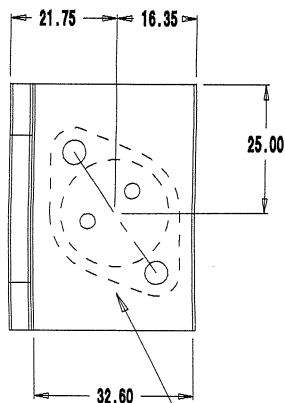
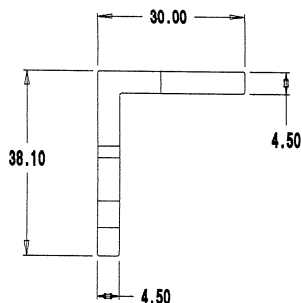
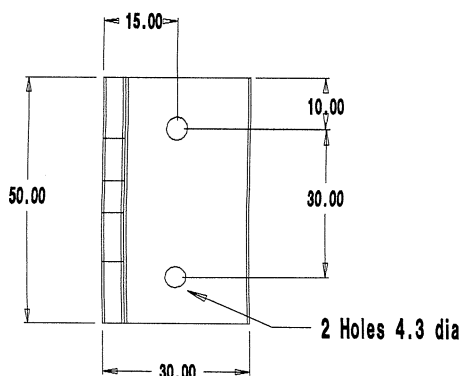
AA6063-T5

Part Number:- HSA-XXXX-xx-F(special adder/suffix)

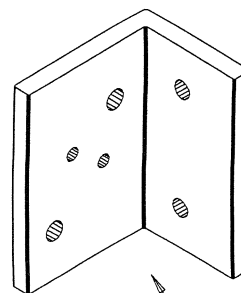
Please compose a Part Number according to this system and use on your official order.

HS- Prefix to indicate "HEATSINK" or related products or accessories.
XXXX- CASA's EXTRUSION or TYPE / Reference number from above
xx- Overall cut LENGTH in millimeters.
F- The FINISH applied to the part (N = Natural, B = Black Anodized)
(-----) Special adder "TO3" etc. or suffix for brief customer reference detail.





"T03" or other hole patterns/orientations where/as practical.



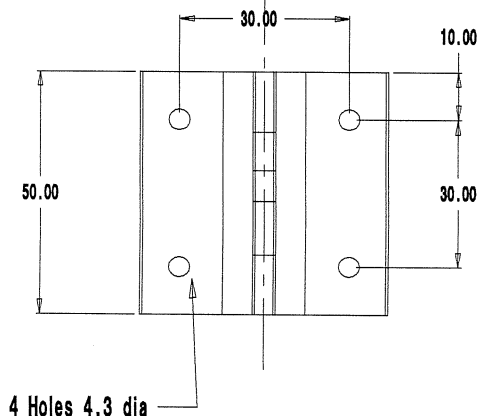
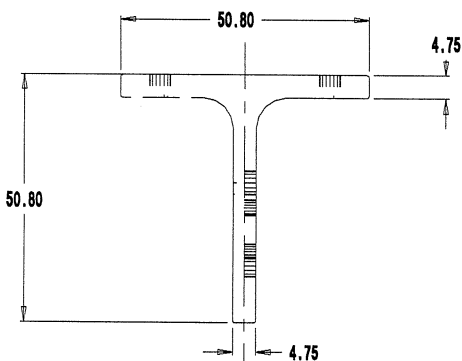
Example shown is CASA's Part # HSA-5743-50-N(T03)
Other lengths & details can be produced to order.

MATERIAL	Extrusion
Extrusion No.	9NZ-5743
ALLOY	6063-T5
EST. AREA	286 mm
EST. WEIGHT	2.80 kg/m
EST. PERIPHERY	EXT: 132 mm
TOT: ??? mm	
TOLERANCE	
0-60mm ±0.1mm	
60-100mm ±0.25mm	
100-200mm ±0.5mm	
200-500mm ±0.1mm	
> 500mm ±0.5mm	
BS1474:1987	
APPLIES UNLESS OTHERWISE SPECIFIED	
JOB No.	23xx

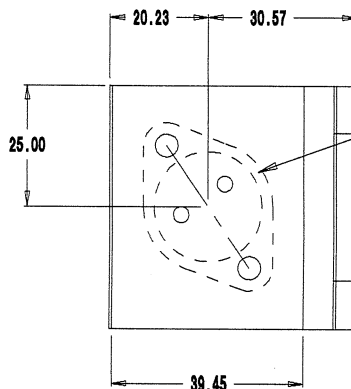
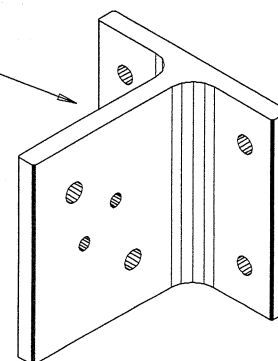
CASA Modular Systems
P.O. BOX 38-828, WELLINGTON, NEW ZEALAND
TELEPHONE : (64-4) 5687 277
FACSIMILE : (64-4) 5687 161

CUSTOMER : CASA Modular Systems
DESCRIPTION : ADAPTOR Heatsink 1xT03
DRAWN : A.W.D. DATE : 13/11/93 APPROVED : ? DWG. SCALE : 1:1

SIZE : A4
DRAWING Reference No. : HSA5743T
ISSUE : A
COPYRIGHT : CASA Modular Systems
ALL RIGHTS RESERVED



Example shown is CASA's Part # HSA-1184-50-N(T03)
Other lengths & Drillings can be produced to order.



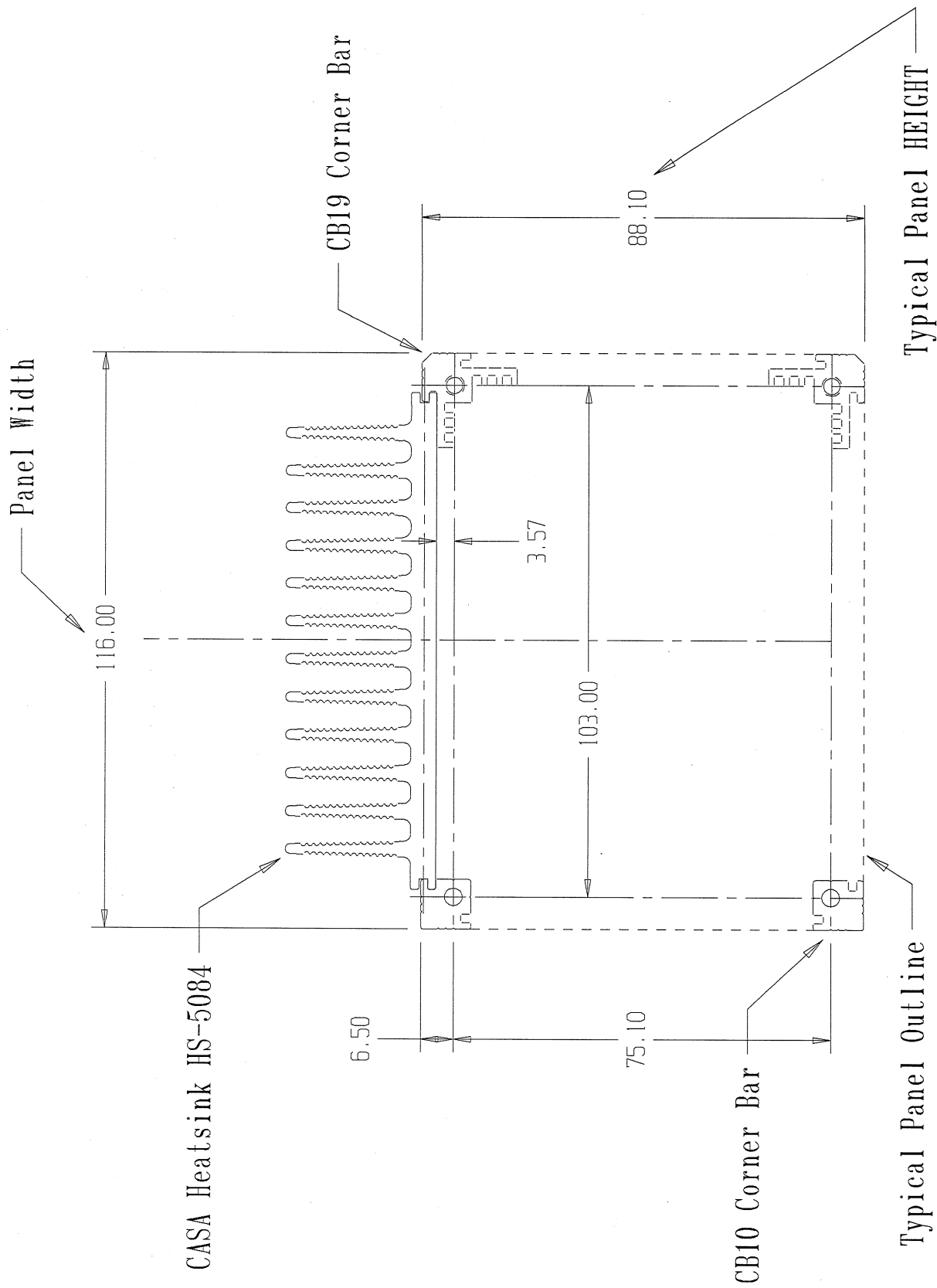
"T03" or other hole patterns/orientations to order (where practical).

MATERIAL	Extrusion
Extrusion No.	1184
ALLOY	6063-T5
EST. AREA	??? mm
EST. WEIGHT	0.949 kg/m
EST. PERIPHERY	EXT: 147.8 mm
TOT: ?? mm	
TOLERANCE	
0-60mm ±0.1mm	
60-100mm ±0.25mm	
100-200mm ±0.5mm	
200-500mm ±0.1mm	
> 500mm ±0.5mm	
BS1474:1987	
APPLIES UNLESS OTHERWISE SPECIFIED	
JOB No.	23xx

CASA Modular Systems
P.O. BOX 38-828, WELLINGTON, NEW ZEALAND
TELEPHONE : (64-4) 5687 277
FACSIMILE : (64-4) 5687 161

CUSTOMER : CASA Modular Systems
DESCRIPTION : ADAPTOR Heatsink 1xT03
DRAWN : A.W.D. DATE : 13/11/93 APPROVED : ? DWG. SCALE : 1:1

SIZE : A4
DRAWING Reference No. : HSA1184T
ISSUE : A
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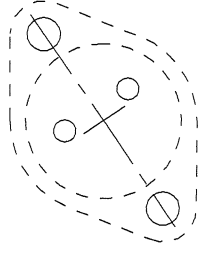


JOB No.
24xx

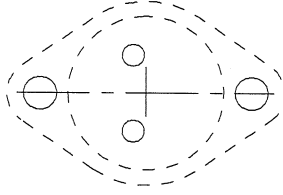
CUSTOMER : CASA Modular Systems		SIZE	DRAWING Reference No.	ISSUE
DESCRIPTION : CB10~19 • HS5084 Assembly		A4	CBHS5084	A
DRAWN : A.W.D	DATE : 11/04/95	APPROVED : ?	DWG. SCALE : 1:1	© COPYRIGHT : CASA Modular Systems ALL RIGHTS RESERVED
CASA Modular Systems P.O. BOX 38-828, WELLINGTON, NEW ZEALAND TELEPHONE : (64-4) 5687 277 FACSIMILE : (64-4) 5685 161				

JEDEC Type "TO-3" (TO-204) Fixing Hole Styles/Sizes

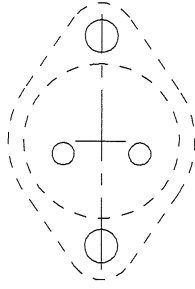
CASA - STANDARD



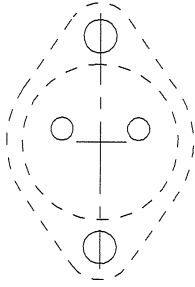
TO-3 e 34.5°
T03-345D.DWG



TO-3 e 90°
T03-90D.DWG

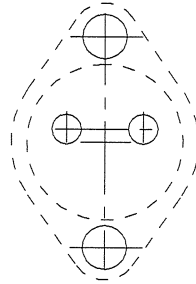


TO-3 e 180°
T03-180D.DWG

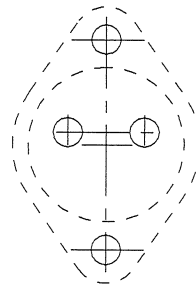


TO-3 e 0°
T03-0D.DWG

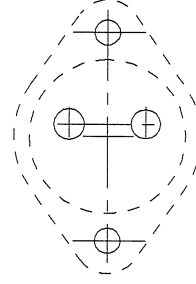
CASA Standard "TO-3" Fixing Hole Sizes



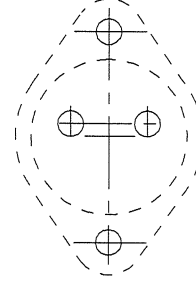
6.35x4.2mm
T03-63x4.DWG



4.2x4.2mm
T03-42x4.DWG



3.7x4.2mm
T03-37x4.DWG



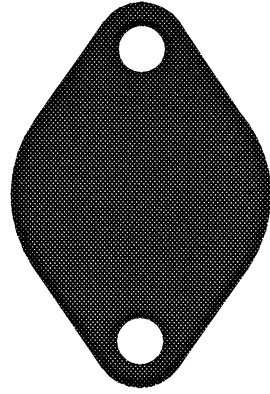
3.7x3.7mm
T03-37x3.DWG

JOB No.

NOTE:- 3.7 ϕ Holes may be tapped M4 using Roll-Form Tap only.
All above "BLOCK/PART" Files are available to CASA Customers for use in the design of CASA custom HeatSinks

CASA Modular Systems	CUSTOMER : CASA Modular		SIZE	DRAWING Reference No.	ISSUE
	DESCRIPTION : TO-3 Fixing Styles		A4	T03-BLKS	A
P.O. BOX 38-828, WELLINGTON, NEW ZEALAND TELEPHONE : (64-4) 5687 277 FACSIMILE : (64-4) 5685 161	DRAWN : AWD	DATE : 20/10/93	APPROVED : JR	SCALE : 1:1	© COPYRIGHT : CASA Modular Systems. ALL RIGHTS RESERVED

JEDEC Case Type T03 (T0-204)



Technical drawing of a device outline. The drawing shows a rectangular shape with a dashed outline and a solid outline. The dimensions are as follows:

- Overall width: 39.69
- Overall height: 30.15
- Distance from left edge to center of first hole: 13.33
- Distance from center of first hole to center of second hole: 10.92
- Distance from center of second hole to right edge: 16.90
- Distance from left edge to center of third hole: 15.08
- Distance from center of third hole to center of fourth hole: 10.92
- Distance from center of fourth hole to right edge: 16.90

Labels:

- Outline of Device
- 2 Holes 3.2dia
- 2 Holes 3.3-6.35dia

<p>TOLERANCE</p> <p>0-600mm ± 0.1mm > 600mm ± 0.5mm</p>	<p>BS1474:1987</p> <p>APPLIES UNLESS OTHERWISE SPECIFIED</p>	<p>JOB No.:</p>
--	--	-----------------

<div><div>Modular Systems</div><div>P.O. BOX 38-828, WELLINGTON, NEW ZEALAND</div><div>TELEPHONE : (64-4) 5687 277</div><div>FACSIMILE : (64-4) 5685 161</div></div>				CUSTOMER : CASA Modular		SIZE	DRAWING Reference No.	ISSUE
DESCRIPTION : JEDEC Type TO-3 (TO-204)								
DRAWN : A.W.D	DATE : 20/10/93	APPROVED :	SCALE 1:1	<div> COPYRIGHT : CASA Modular Systems. ALL RIGHTS RESERVED</div>				