

Mechanical standardization of semiconductor devices —

Part 10: Schedule of UK national drawings giving dimensions

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Electronic Components Standards Policy Committee (ECL/-) to Technical Committee ECL/24, upon which the following bodies were represented:

- EEA (the Association of Electronics, Telecommunications and Business Equipment Industries)
- Electronic Components Industry Federation
- GAMBICA (BEAMA Ltd.)
- Ministry of Defence
- National Supervising Inspectorate
- Society of British Aerospace Companies Limited

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The following BSI references relate to the work on this standard:
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Amendments issued since publication

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Foreword

This British Standard has been prepared under the direction of the Electronic Components Standards Policy Committee. It consists of all the existing purely national work in the area of mechanical standardization previously published in BS 3934:1965, but not published by the International Electrotechnical Commission (IEC) in IEC 191-2:1966 “*Mechanical standardization of semiconductor devices, Part 2. Dimensions*”.

This British Standard is Part of a series of standards corresponding to the Parts of the IEC publication on “*Mechanical standardization of semiconductor devices*”. The other Parts of BS 3934 are as follows.

- *Part 1: Preparation of drawings of semiconductor devices;*
(Technically equivalent to IEC 191-1)
- *Part 2: Schedule of international drawings giving dimensions of semiconductor devices;*
(Identical with IEC 191-2)
- *Part 3: Recommendations for the preparation of outline drawings of integrated circuits;*
(Technically equivalent to IEC 191-3)
- *Part 4: Recommendations for a coding system and classification into forms of package outlines for semiconductor devices;*
(Identical with IEC 191-4)
- *Part 5: Recommendations for tape automated bonding (TAB) of integrated circuits;*
(Identical with IEC 191-5)
- *Part 6: Specification for the preparation of outline drawings of surface mounted semiconductor device packages.*
(Identical with IEC 191-6)

BS 3934-1 to BS 3934-6 and BS 3934-10 supersede BS 3934:1965, which is withdrawn.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 88, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Section 1. General

1 Scope

This British Standard comprises a schedule of drawings of outlines, bases and gauges of various forms of semiconductor devices and integrated circuits that have not been published by the International Electrotechnical Commission (IEC). Guidance on the interpretation and use of the drawings is given in Parts 1 to 6 of this standard.

2 Index to drawings in Parts 2 and 10 of BS 3934

UK reference	BS 3934 Part	IEC reference	UK reference	BS 3934 Part	IEC reference
SO-1	10	—	SO-42	2	A1OU1
SO-2	2	C2	SO-43A	2	A8-1
SO-3	2	C4	SO-43B	10	—
SO-4	Withdrawn	—	SO-44A	2	C4
SO-5A	2	C14A	SO-45	2	A20
SO-5B	2	C14B	SO-46	2	A69
SO-6	2	A1A	SO-47	10	—
SO-7	2	A1B	SO-48	10	—
SO-8	2	A1C	SO-50A	10	—
SO-10A	2	A3U	SO-50B	Withdrawn	—
SO-10B	2	A3M	SO-51A	10	—
SO-12A	2	C7	SO-51B	Withdrawn	—
SO-12B	2	C9	SO-52A	10	—
SO-12C	2	C10	SO-52B	10	—
SO-12D	10	—	SO-52C	10	—
SO-13A	2	A4U	SO-53A	10	—
SO-13B	2	A4M	SO-53B	Withdrawn	—
SO-14A	10	—	SO-53C	10	—
SO-14B	10	—	SO-55	2	C13
SO-15A	10	—	SO-56	10	—
SO-15B	10	—	SO-57	10	—
SO-15C	10	—	SO-58	2	A32
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SO-17A	10	—	SO-67	10	—
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SO-22	2	C8	SO-70	10	—
SO-23	2	C6	SO-71	10	—
SO-25	10	—	SO-73	2	A27U
SO-26	2	A18	SO-78	2	A71
SO-28	2	A14U	SO-84	2	A24
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SO-29B	2	A9MA1	SO-86	10	—
SO-29C	2	A9UC1	SO-87A	2	050 G03
SO-30A	2	A12U1	SO-87B	2	050 G04
SO-30B	Withdrawn	—	SO-87C	2	050 G08
SO-30C	10	—	SO-87D	2	050 G01
SO-31	2	A7U	SO-87E	2	050 G09
SO-32A	2	A16U	SO-87F	10	—
SO-32B	2	A17MA1	SO-87G	2	050 G12
SO-32C	10	—	SO-87H	2	050 G15
SO-35A	2	A13U	SO-88	2	A31U
SO-35B	Withdrawn	—	SO-90	2	A66UA
SO-36	2	A11U	SO-91	2	A66UD
SO-37	2	C15	SO-92A	2	A52A
SO-38	10	—	SO-92B	2	A52B
SO-39	Withdrawn	—	SO-92C	2	A52C
SO-40	2	A6	SO-92D	2	A52D
SO-41	Withdrawn	—	SO-93A	2	A53A

UK reference	BS 3934 Part	IEC reference	UK reference	BS 3934 Part	IEC reference
SO-93B	2	A53B	SO-139	2	A44
SO-93C	2	A53C	SO-140	2	A45
SO-93D	2	A53D	SO-141A	2	060 G07
SO-93E	2	A53E	SO-141B	2	060 G06
SO-94	10	—	SO-141C	2	060 G09
SO-95	10	—	SO-142A	2	A61A
SO-96	10	—	SO-142B	2	A61B
SO-97	10	—	SO-143	10	—
SO-98	10	—	SO-144A	2	A62A
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SO-100	10	—	SO-144C	2	A62D
SO-101	2	A19	SO-144D	2	A62E
SO-102	10	—	SO-145E	2	063A01
SO-103	2	A54	SO-147	10	—
SO-104	10	—	SO-148	10	—
SO-105	10	—	SO-149	10	—
SO-106	10	—	SO-150	10	—
SO-107	10	—	SO-153	2	A67
SO-108A	10	—	SO-154	10	—
SO-108B	10	—	SO-155	2	A68
SO-109	10	—	SO-157	2	A66UC
SO-110	2	A55	SO-161	10	—
SO-111	10	—	SO-162	10	—
SO-112	10	—	SO-163	2	A72B
SO-113	10	—	SO-164	10	—
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SO-115	2	A36	SO-166	10	—
SO-116	2	A40	SO-167	10	—
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SO-119B	2	051 G04	SO-176	2	A59
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SO-119D	2	051 G02	SO-178	2	A73A
SO-119E	2	051 G05	SO-179	2	A74A
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SO-120B	10	—	SO-182	2	A70
SO-121	10	—	SO-186A	2	060 G05
SO-122	10	—	SO-186B	2	060 G08
SO-123	2	046E01	SO-186C	2	060 G10
SO-124	10	—	SO-187A	2	051 G03
SO-125	10	—	SO-187B	2	051 G06
SO-126	10	—	SO-187C	2	051 G09
SO-127	10	—	SO-187D	2	051 G12
SO-128A and B	10	—	SO-188A	2	050 G05
SO-129A and B	10	—	SO-188B	2	050 G06
SO-130A and B	10	—	SO-188C	2	050 G10
SO-131	2	A58	SO-188D	2	050 G02
SO-132A to C	10	—	SO-188E	2	050 G13
SO-133A and B	10	—	SO-188F	2	050 G07
SO-134A and B	10	—	SO-189A	2	077B01
SO-135A and B	10	—	SO-189B	2	077B02
SO-136	2	A56	SO-189C	2	077B03
SO-137	2	A57	SO-189D	2	077B04
SO-138	2	A42	SO-189E	2	077B05

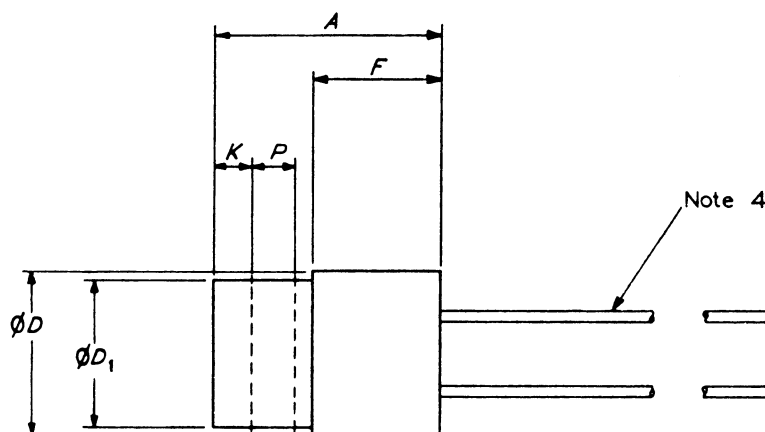
UK reference	BS 3934 Part	IEC reference
SO-189F	2	077B06
SO-190	2	101A00
SO-191	2	101B01
SO-192A	2	075E03
SO-192B	2	075E04
SO-192C	2	075E05
SO-192D	2	075E06
SO-192E	2	075E01
SO-192F	2	075E02
SO-193A	2	076E03S
SO-193B	2	076E06S
SO-193C	2	076E07L
SO-194	2	046E02
SO-195A	2	112E04
SO-195B	2	112E08
SO-195C	2	112E10
SO-195D	2	112E11
SO-195E	2	112E12
SO-195F	2	112E13
SO-195G	2	112E01
SO-195H	2	112E02
SO-195I	2	112E03
SO-195J	2	112E05
SO-195K	2	112E06
SO-195L	2	112E07
SO-195M	2	112E09
SO-195N	2	112E14
SO-195P	2	112E15
SO-196	2	100F
SO-197	2	114E01
SO-198	10	—
SO-199A	2	102B01
SO-199B	2	102B02
SO-199C	2	102B03
SO-199D	2	102B04
SO-200	10	—
SO-201A	2	106B01
SO-201B	2	106B02
SO-202A	2	107B01
SO-202B	2	107B02
SO-203A	2	100A01
SO-203B	2	100A02
SO-204	2	120E
SO-207A	2	100 G01
SO-207B	2	100 G02
SO-207C	2	100 G03
SO-207D	2	100 G04
SO-208A	2	102E02
SO-208B	2	102E03
SO-208C	2	102E04
SO-208D	2	102E05
SO-208E	2	102E06
SO-208F	2	102E07
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SO-209B	2	119E03
SO-210	2	100B

Section 2. Outline drawings

3 List of drawings

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SO-14B	SO-114
SO-15A	SO-117A
SO-15B	SO-117B
SO-15C	SO-117C
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SO-17B	SO-120A
SO-25	SO-120B
SO-30C	SO-121
SO-32C	SO-122
SO-38	SO-124
SO-43B	SO-125
SO-47	SO-126
SO-48	SO-127
SO-50A	SO-128A and B
SO-51A	SO-129A and B
SO-52A	SO-130A and B
SO-52B	SO-132A to C
SO-52C	SO-133A and B
SO-53A	SO-134A and B
SO-53C	SO-135A and B
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SO-59	SO-148
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SO-86	SO-150
SO-87F	SO-154
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SO-96	SO-164
SO-97	SO-165
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SO-108A	SO-175
SO-108B	SO-177
SO-109	SO-198
SO-111	SO-200

SEMICONDUCTOR DEVICE OUTLINE SO-1



The inch dimensions are derived from the original millimetre dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
<i>A</i>	6.6		8.25		0.260		0.324	
ϕD			6.5				0.255	1
ϕD_1	5.1		5.8		0.201		0.228	2
<i>F</i>			4.83				0.1901	1
<i>K</i>			1.5				0.509	3
<i>P</i>	2.0				0.079			2

NOTE 1 Dimensions ϕD and F are included to permit the use of a flange (not necessarily at the base). Where no flange is present, dimensions ϕD and F may become ϕD_1 and zero and therefore no minimum dimensions are specified.

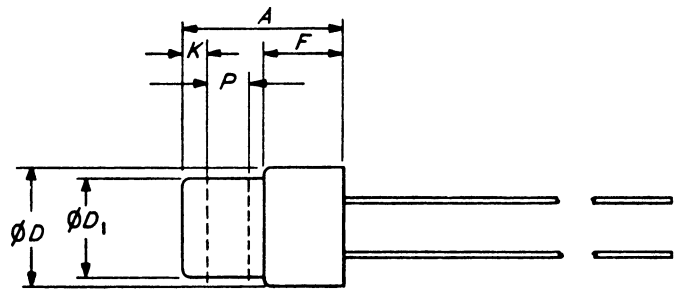
NOTE 2 Controlled cylindrical zone: the variation in diameter within this zone should not exceed 0.2 mm (0.0078 in).

NOTE 3 Maximum diameter not greater than that of the controlled cylindrical zone.

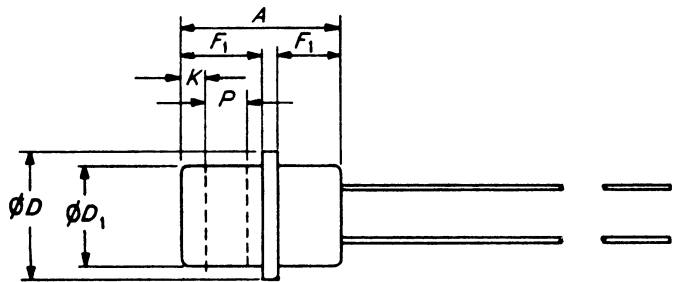
NOTE 4 For details of the leads see the associated base drawing specified by the manufacturer.

For the bases at present known to be associated with this outline, see the index of cross references.

SUB-DIVISIONS OF
SEMICONDUCTOR DEVICE OUTLINE SO-1



SO-1/1



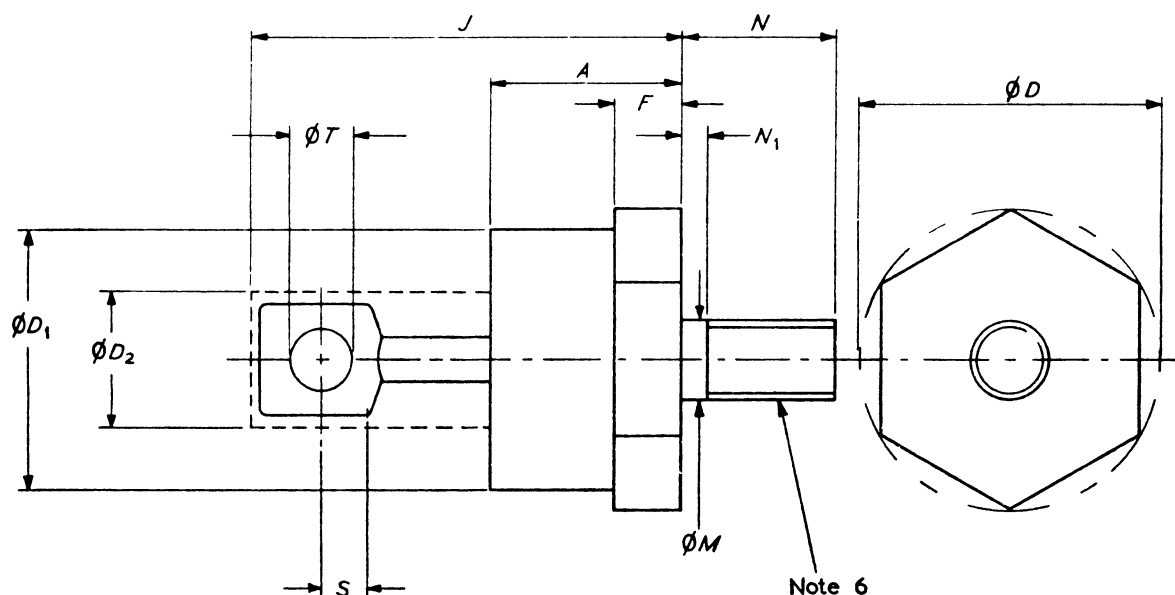
SO-1/2

The inch dimensions are derived from the original millimetre dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
A	6.6		8.25		0.260		0.324	
ϕD	5.7		6.5		0.225		0.255	
ϕD_1	5.1		5.8		0.201		0.228	
F	0.5		4.0		0.020		0.157	
F_1	3.4				0.134			
K			1.5				0.059	
P	2.0				0.79			1

NOTE 1 Controlled cylindrical zone: the variation in diameter within this zone must not be greater than 0.2 mm (0.008 in).

SEMICONDUCTOR DEVICE OUTLINE SO-14A



The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
A			13.97				0.550	
ϕD			20.16				0.794	
ϕD_1			16.94				0.667	
ϕD_2			9.52				0.375	1
F	2.93		5.08		0.115		0.200	2
J			31.75				1.250	
ϕM	4.91		6.35		0.193		0.250	3
N	10.72		12.70		0.422		0.500	
N_1			2.26				0.089	4
S	3.05				0.120			5
ϕT	3.56		4.44		0.140		0.175	

NOTE 1 This zone includes a lug of undefined contour and orientation.

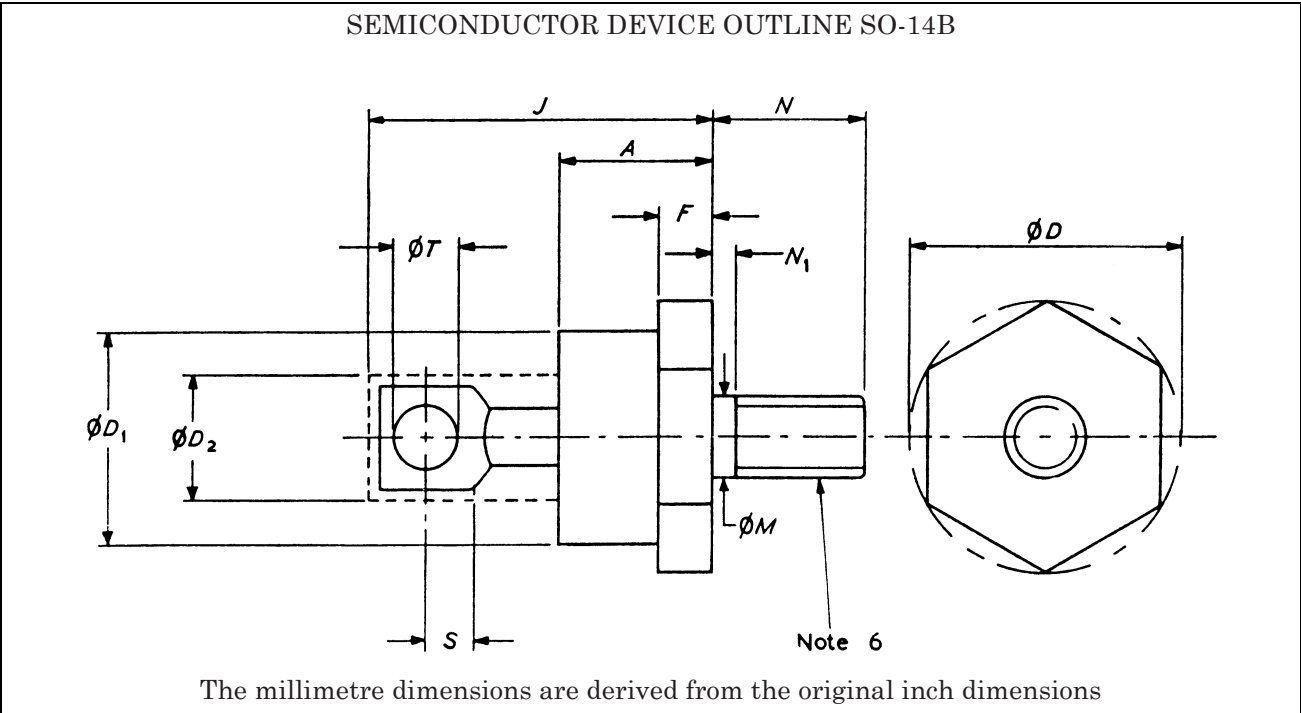
NOTE 2 This zone includes an $11/16$ in hexagon: (17.47 mm) 0.688 in max., (16.95 mm) 0.667 in min. across flats.

NOTE 3 ϕM refers to length N_1 .

NOTE 4 Dimension to end of full thread.

NOTE 5 Minimum flat.

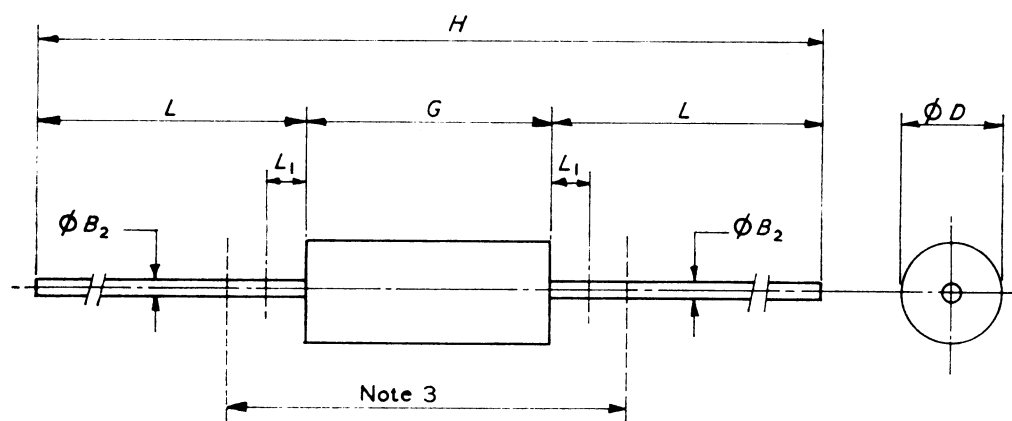
NOTE 6 Thread $1/4$ -28UNF-2A.



Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
A			13.97				0.550	
ϕD			21.99				0.866	
ϕD_1			18.84				0.742	
ϕD_2			9.52				0.375	1
F	2.93		5.08		0.115		0.200	2
J			31.75				1.250	
ϕM	4.91		6.35		0.193		0.250	3
N	10.72		12.70		0.422		0.500	
N ₁			2.26				0.089	4
S	3.05				0.120			5
ϕT	3.56		4.44		0.140		0.175	
NOTE 1	This zone includes a lug of undefined contour and orientation.							
NOTE 2	This zone includes an $\frac{3}{4}$ in hexagon: (19.05 mm) 0.750 in max., (18.85 mm) 0.742 in min. across flats.							
NOTE 3	ϕM refers to length N ₁ .							
NOTE 4	Dimension to end of full thread.							
NOTE 5	Minimum flat.							
NOTE 6	Thread $\frac{1}{4}$ -28UNF-2A.							

OUTLINE DRAWINGS

SO-15A To C



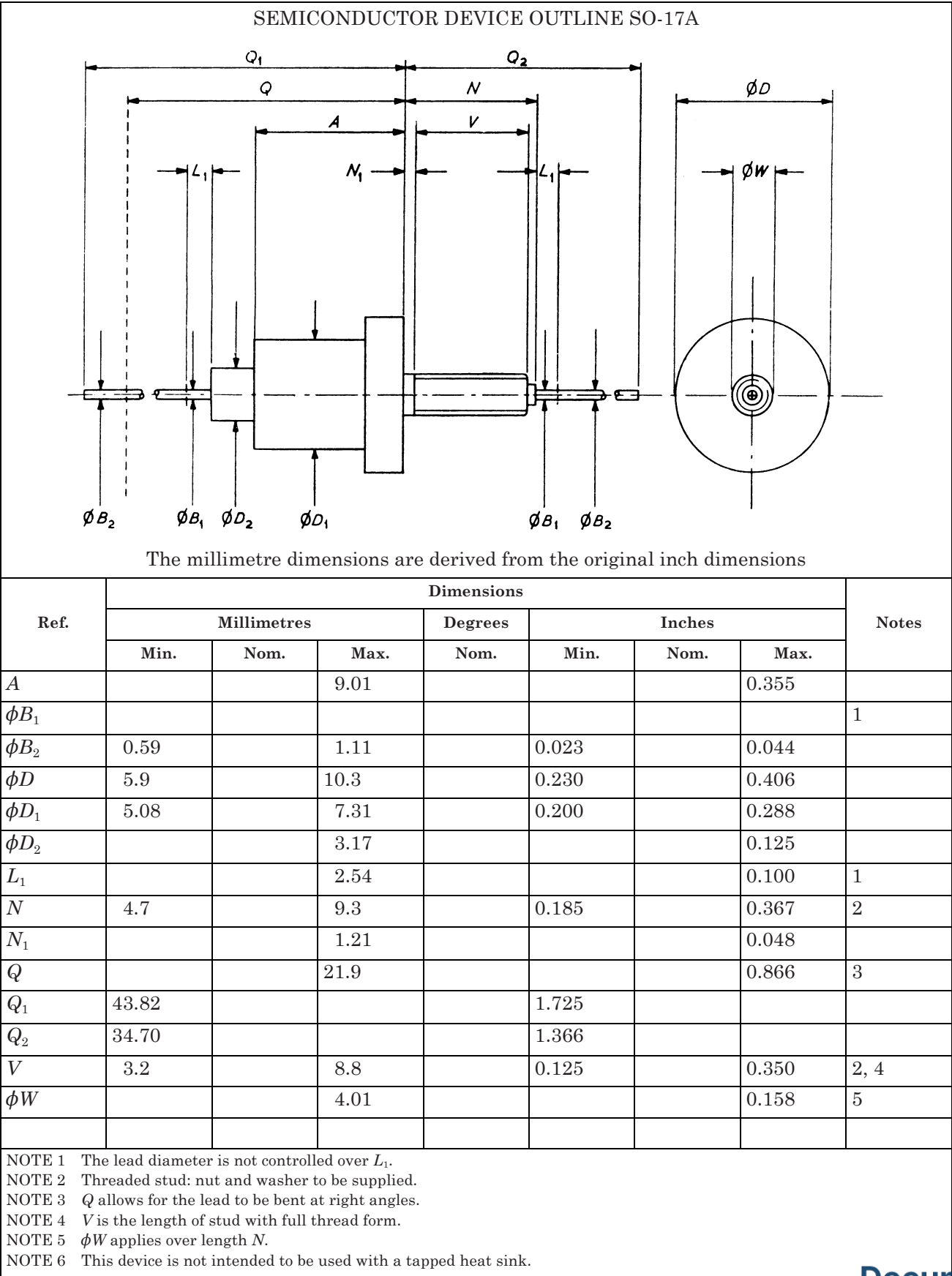
Dimensions (see Note 1)

Ref.	Millimetres			Inches			Notes
	Min.	Nom.	Max.	Min.	Nom.	Max.	
ϕD			6.61			0.260	
G			17.53			0.690	
H	56.6			2.23			
L	25.4			1.0			
L_1			2.54			0.100	2
SO-15A							
ϕB_2	0.50		0.67	0.020		0.026	
SO-15B							
ϕB_2	0.63		0.94	0.025		0.037	
SO-15C							
ϕB_2	0.88		1.12	0.035		0.044	

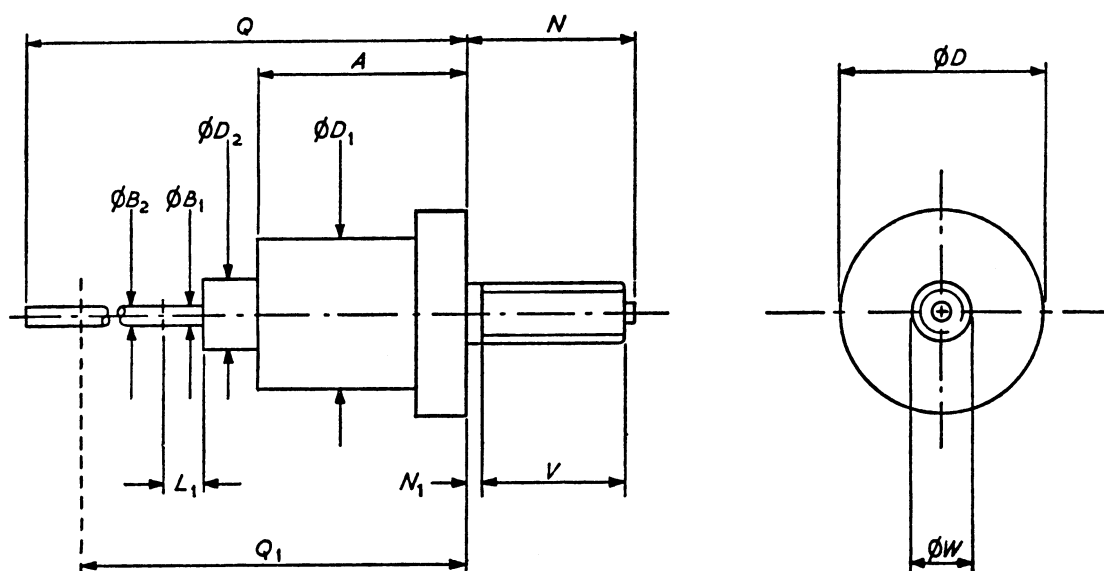
NOTE 1 The millimetre dimensions are the prime dimensions: the inch dimensions are given only for information

NOTE 2 The terminal diameter is not controlled over length L_1 .

NOTE 3 The minimum axial length within which the device may be placed with the terminals bent at right angles is 25.4 mm (1.00 in).



SEMICONDUCTOR DEVICE OUTLINE SO-17B



The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
A			9.01				0.355	
ϕB_1								1
ϕB_2	0.59		1.11		0.023		0.044	
ϕD	5.9		10.3		0.230		0.406	
ϕD_1	5.08		7.31		0.200		0.288	
ϕD_2			3.17				0.125	
L_1			2.54				0.100	1
N	4.7		9.3		0.185		0.367	2
N_1			1.21				0.048	
Q	43.82				1.725			
Q_1			21.9				0.866	3
V	3.2		8.8		0.125		0.350	2, 4
ϕW			4.01				0.158	5

NOTE 1 The lead diameter is uncontrolled over length L_1 .

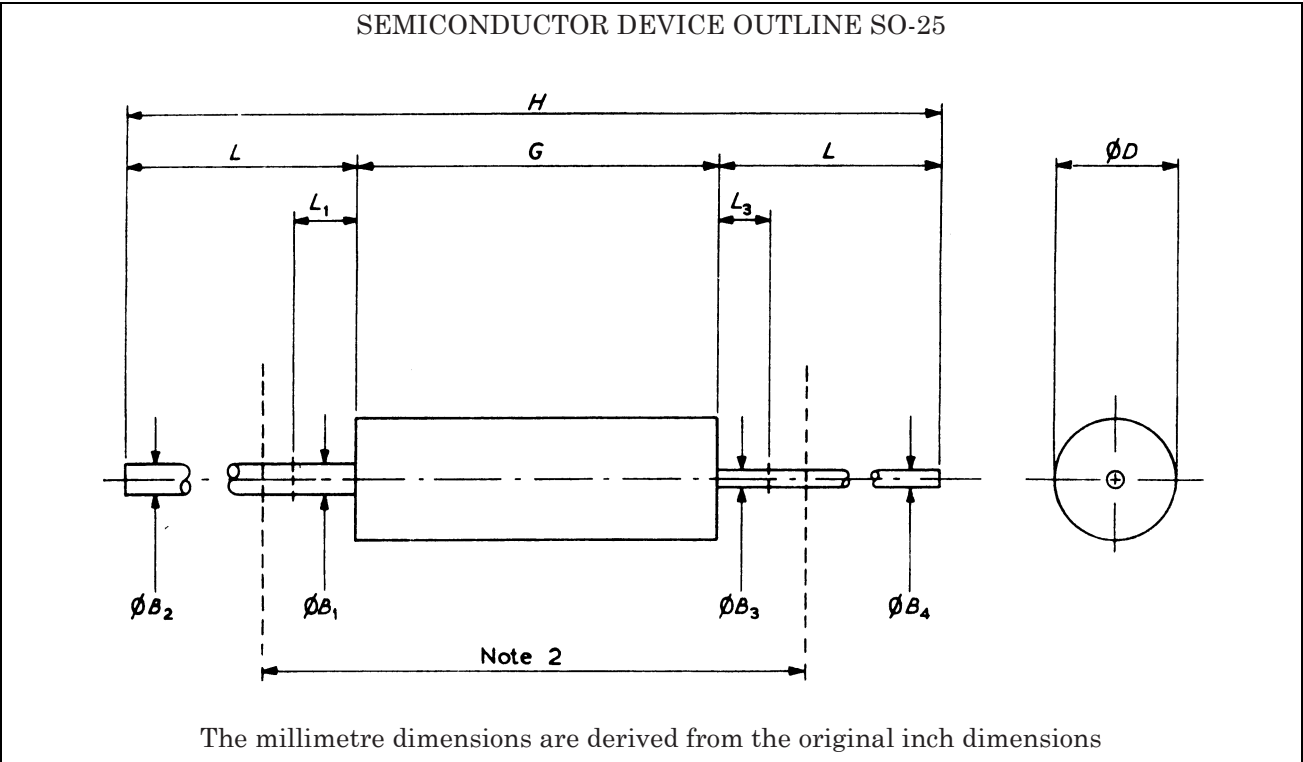
NOTE 2 Threaded stud: nut and washer supplied.

NOTE 3 Q_1 allows for the lead to be bent at right angles.

NOTE 4 V is the length of stud with full thread form.

NOTE 5 ϕW applies over length N.

NOTE 6 This device is not intended to be used with a tapped heat sink.

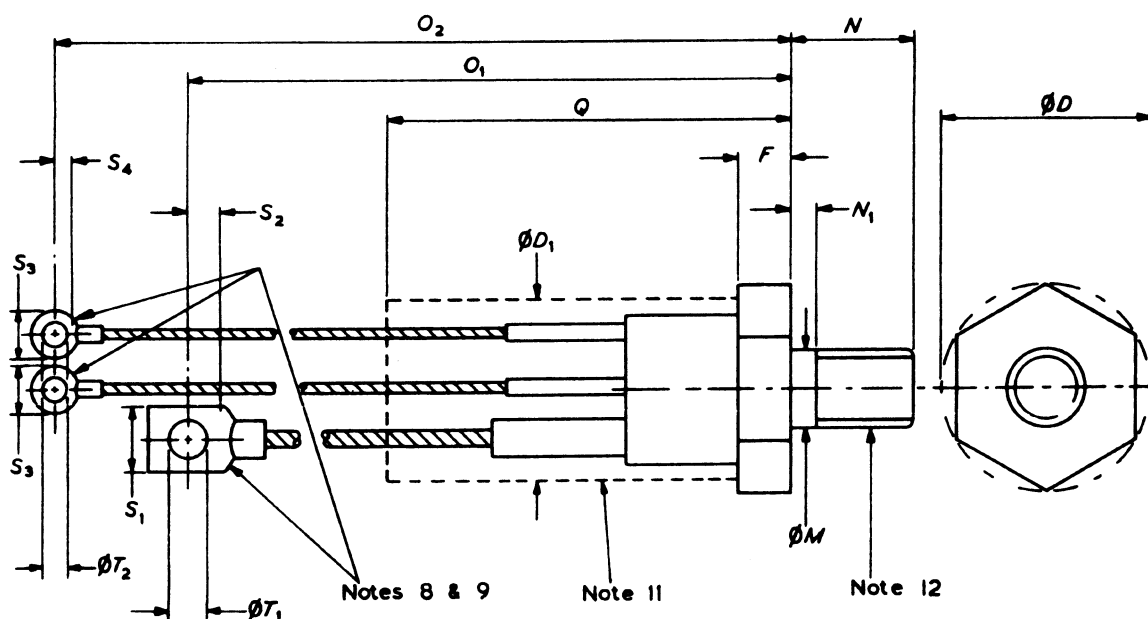


Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
ϕB_1								1
ϕB_2	0.74		0.93		0.029		0.037	
ϕB_3								1
ϕB_4	0.56		0.83		0.022		0.033	
ϕD			5.71				0.225	
G			17.52				0.690	
H	56.7				2.23			
L	26				1.0			
L_1			2.54				0.100	1
L_3			2.54				0.100	1

NOTE 1 The lead diameters are not controlled over lengths L_1 and L_3 .

NOTE 2 The minimum axial length within which the device may be placed with the leads bent at right angles is (25 mm) 1.0 in.

SEMICONDUCTOR DEVICE OUTLINE SO-30C



The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
ϕD			31.24				1.230	
ϕD_1								1, 2
F	4.4		8.8		0.170		0.350	3
ϕM	10.55		12.70		0.415		0.500	4
N	18.5		21.0		0.725		0.827	
N_1			3.17				0.125	5
O_1	140		203		5.5		8.0	6
O_2	166		228		6.5		9.0	6
Q			63.5				2.50	1, 7
S_1			16.51				0.650	8, 9
S_2	6.35				0.250			10
S_3			7.62				0.300	8, 9
S_4	3.81				0.150			10
ϕT_1	6.35		8.40		0.250		0.331	
ϕT_2	2.80		3.93		0.110		0.155	

NOTE 1 The device, with the exception of the hexagon, thread and flexible lead, lies within the zone of ϕD_1 and length Q .

NOTE 2 ϕD_1 must not be greater than the actual across flats dimension of the hexagon used.

NOTE 3 This zone includes a $1\frac{1}{16}$ in hexagon: (26.97 mm) 1.062 in max., (26.19 mm) 1.031 in min. across flats.

NOTE 4 ϕM refers to length N_1 .

NOTE 5 Dimension to end of full thread.

NOTE 6 This lead is flexible: other lengths may be supplied if negotiated between the manufacturer and the user.

NOTE 7 Q allows for the lead to be bent at right angles.

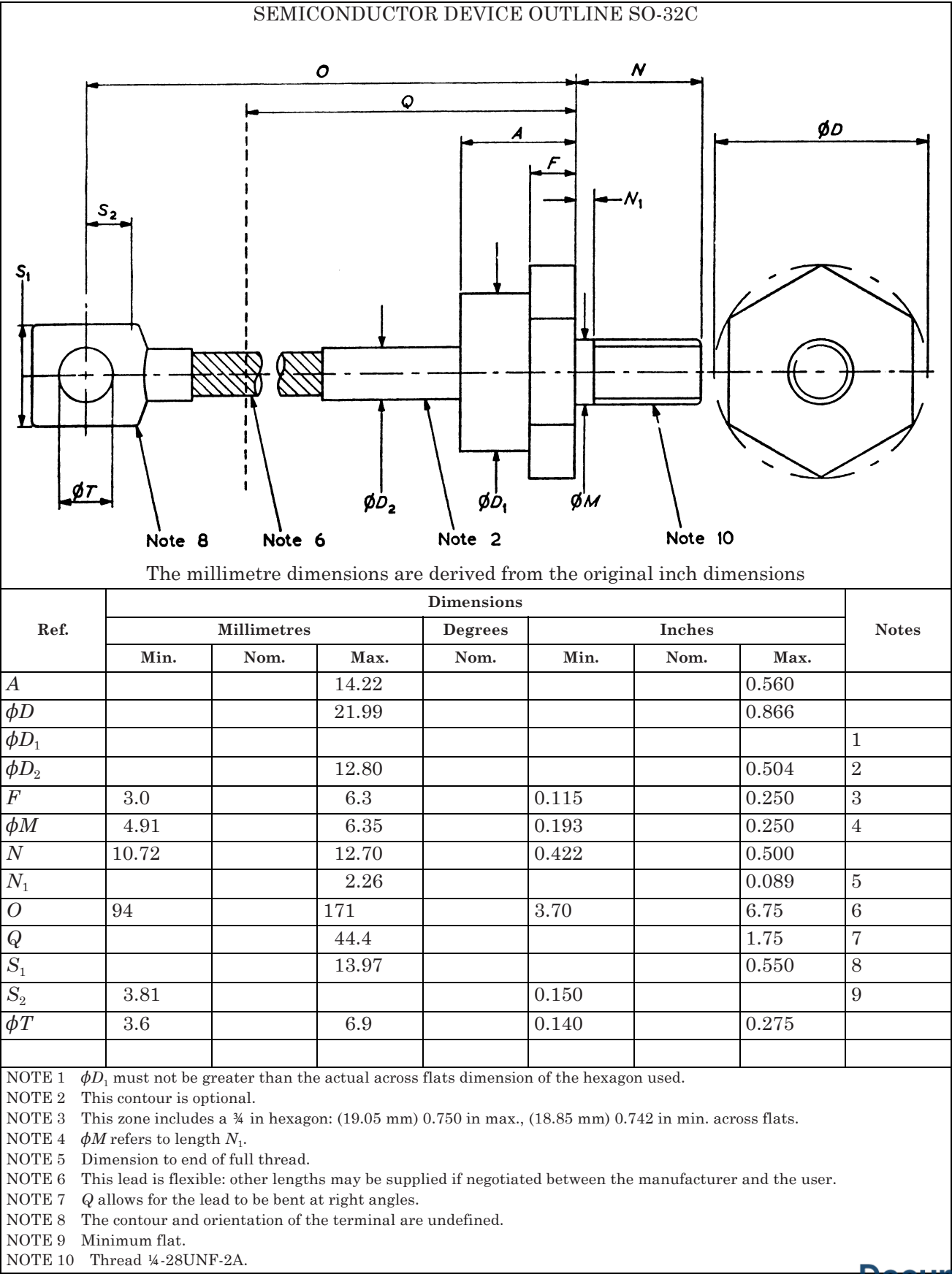
NOTE 8 Identification of the terminals may be obtained from the manufacturer's data sheet.

NOTE 9 The contour and orientation of the terminals are undefined.

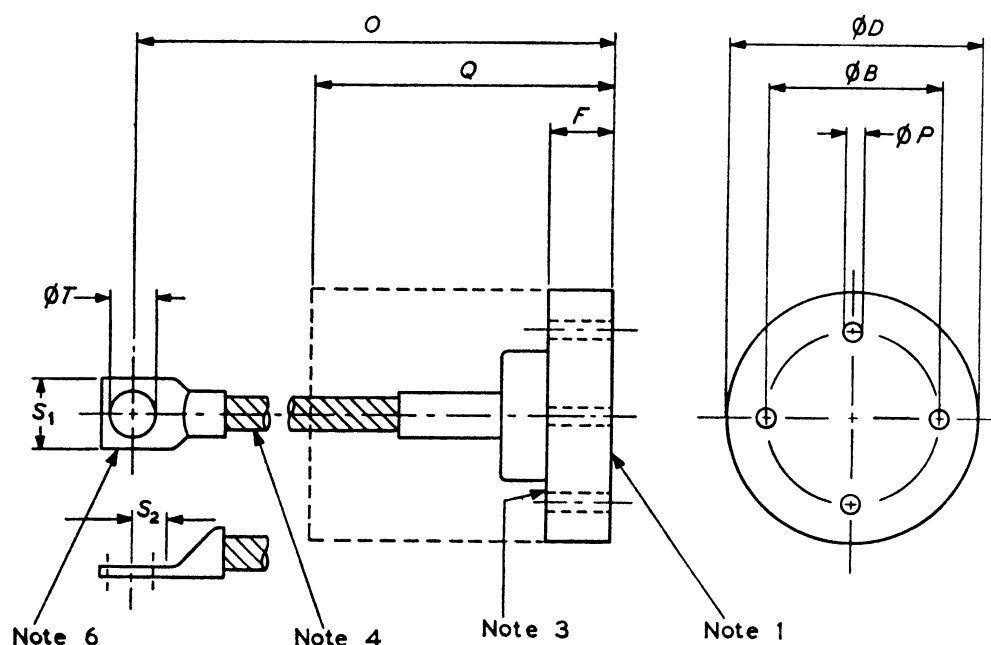
NOTE 10 Minimum flat.

NOTE 11 The representation of lead structure within this zone is diagrammatic only.

NOTE 12 Thread $\frac{1}{2}$ -20UNF-2A.



SEMICONDUCTOR DEVICE OUTLINE SO-38



The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
ϕB	47.38		47.87		1.865		1.885	
ϕD			69.8				2.75	1
F			14.27				0.562	2,3
O	159		241		6.25		9.50	4
ϕP	5.03		5.61		0.198		0.221	3
Q			88.9				3.50	1,5
S_1			22.60				0.890	6
S_2	9.53				0.375			
ϕT	8.13		10.16		0.32		0.40	

NOTE 1 The device and the base fixing plate are contained within the zone of ϕD and length Q . The contour of the base fixing plate is optional in plan and thickness and may be detachable from the device.

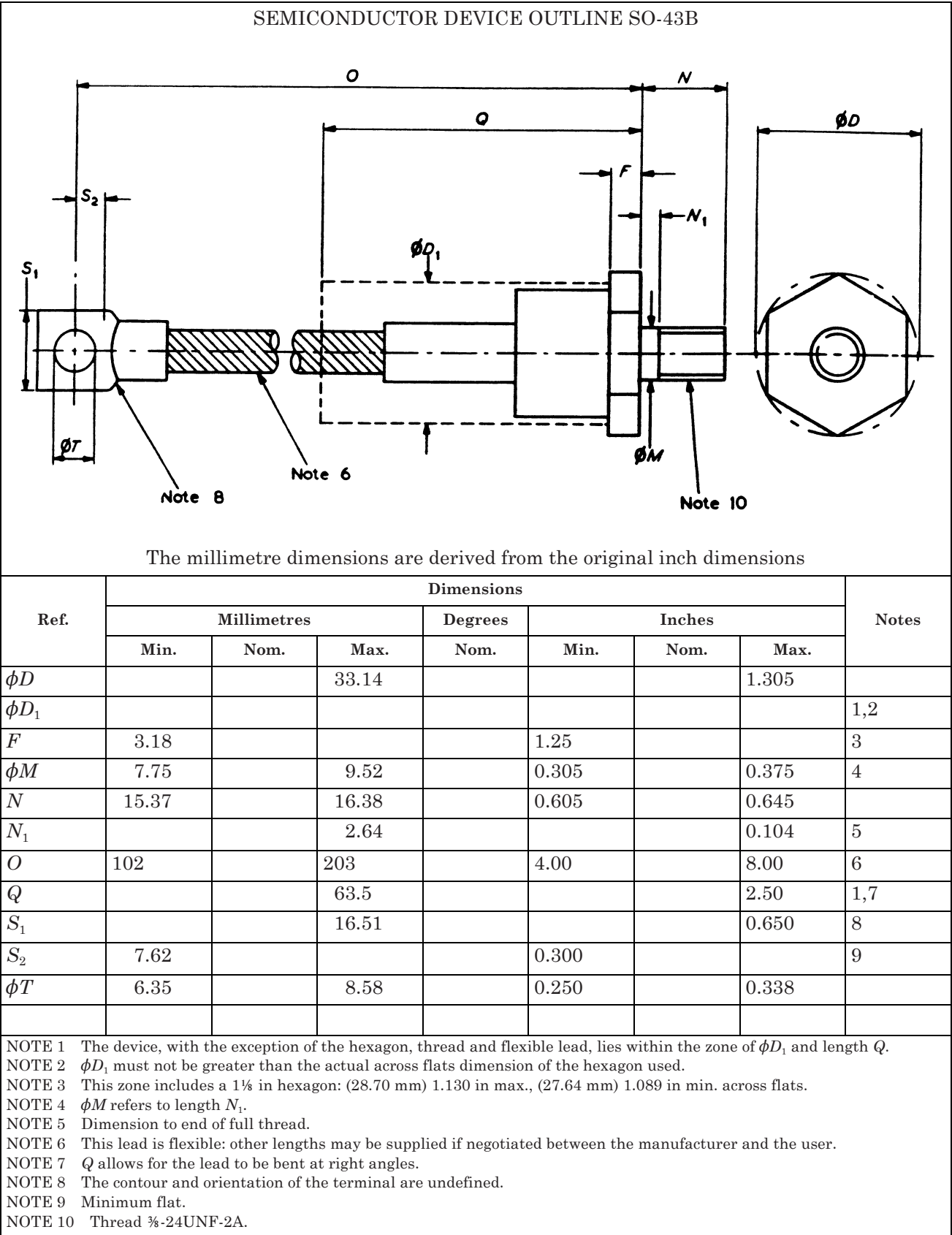
NOTE 2 Maximum dimension at the fixing points.

NOTE 3 Adequate clearance is provided for the maximum diameter of the head of the bolts.

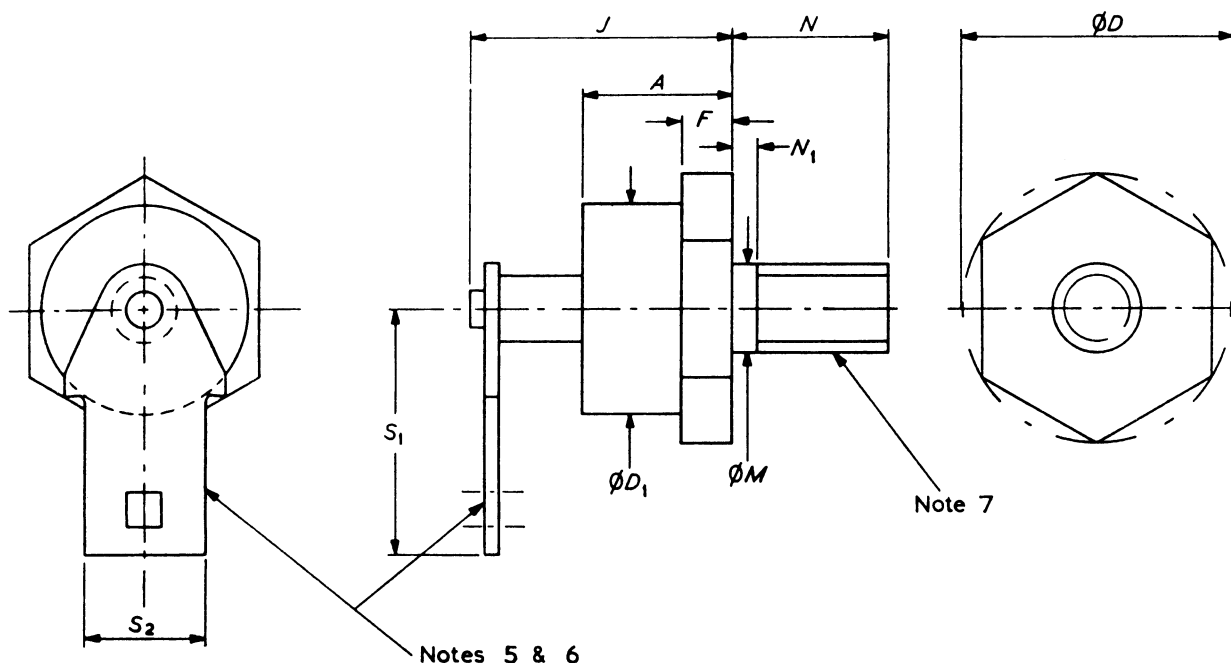
NOTE 4 This lead is flexible: other lengths may be supplied if negotiated between the manufacturer and the user.

NOTE 5 Q is the maximum seated height of the device allowing the flexible lead to emerge parallel to the mounting plane.

NOTE 6 The contour and orientation of the terminal are undefined.



SEMICONDUCTOR DEVICE OUTLINE SO-47



The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
A			14.73				0.580	
ϕD			21.99				0.866	1
ϕD_1								2
F	5.33		7.11		0.21		0.28	
J	18.80		20.32		0.74		0.80	
ϕM	4.91		6.35		0.193		0.250	3
N	12.19		13.20		0.48		0.52	
N_1			2.26				0.089	4
S_1			18.41				0.725	5
S_2	9.449		9.575		0.372		0.377	5

NOTE 1 This zone includes a $\frac{3}{4}$ in hexagon: (19.05 mm) 0.750 in max., (18.85 mm) 0.742 in min. across flats.

NOTE 2 ϕD_1 must not be greater than the actual across flats dimension of the hexagon used.

NOTE 3 ϕM refers to length N_1 .

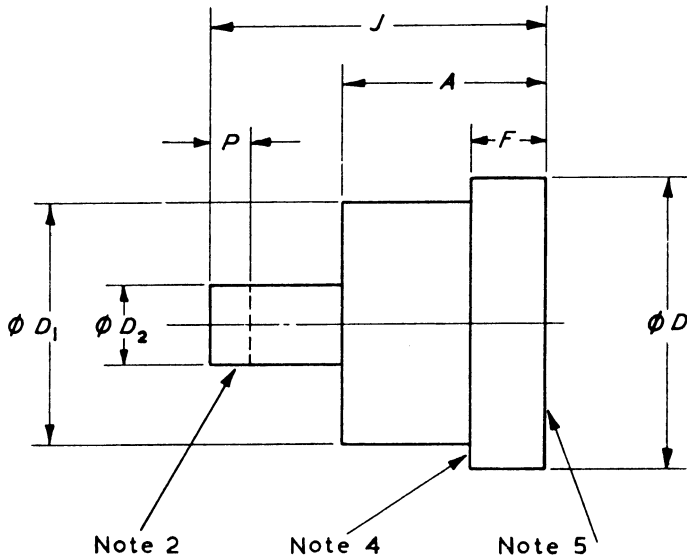
NOTE 4 Dimension to end of full thread.

NOTE 5 Connector blade to ISO 8092, "Road vehicles — Flat, quick-connect terminations — Part 1: Tabs for single pole connections".

NOTE 6 The connector blade is oriented parallel to any of the hexagon flats.

NOTE 7 Thread $\frac{1}{4}$ -28UNF-2A.

SEMICONDUCTOR DEVICE OUTLINE SO-48

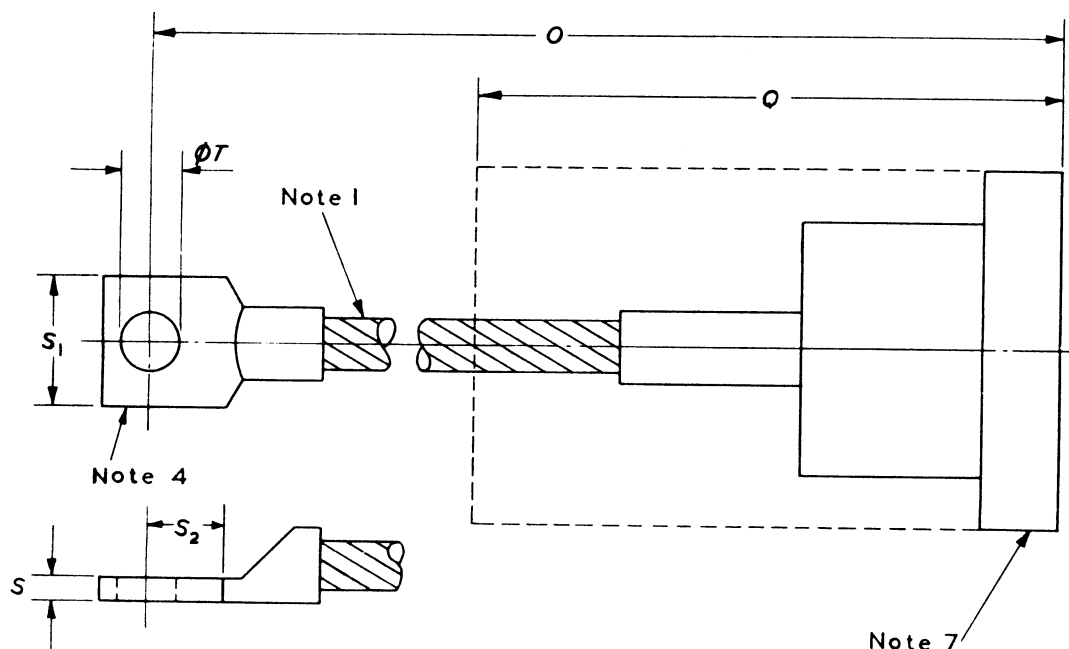


The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
A			28.81				1.135	
ϕD	40.90		41.67		1.610		1.641	
ϕD_1	32.77		33.77		1.290		1.330	1
ϕD_2	11.100		11.149		0.437		0.439	2
F	9.61		10.78		0.378		0.425	
J			47.23				1.860	
P	6.36				0.250			2,3

- NOTE 1 ϕD_1 min. applies only over a distance (1.27 mm) 0.050 in min. from the top face of the clamping surface.
- NOTE 2 Cylindrical terminal to accept clamp connector.
- NOTE 3 Controlled cylindrical zone. This zone is generally cylindrical but may include areas inside but not outside the cylindrical surface.
- NOTE 4 Annular surface, parallel to mounting plane, to accept clamping pressure for mounting.
- NOTE 5 Main heat transfer surface to heat sink.

SEMICONDUCTOR DEVICE OUTLINE SO-50A



The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
O	159.0		241.0		6.25		9.50	1
Q			88.9				3.50	2,3
S			3.17				0.125	
S_1			23.1				0.91	4
S_2	9.53				0.375			5
ϕT								6

NOTE 1 This lead is flexible and may be detachable: other lengths may be supplied if negotiated between the manufacturer and the user.

NOTE 2 The device, with the exception of the flexible lead, lies within the zone defined by dimension Q and the specified base drawing.

NOTE 3 Q allows for the lead to be bent at right angles.

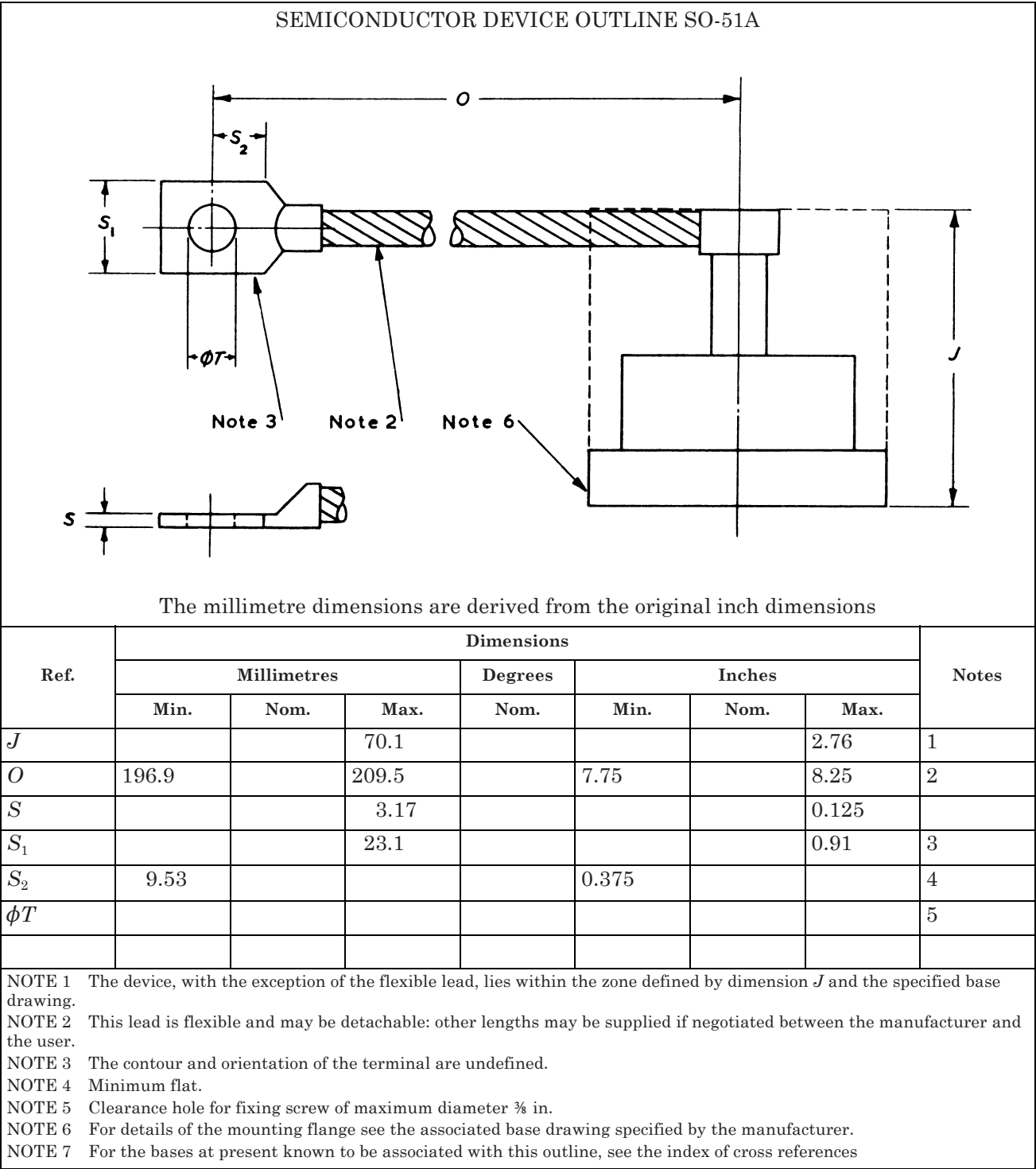
NOTE 4 The contour and orientation of the terminal are undefined.

NOTE 5 Minimum flat.

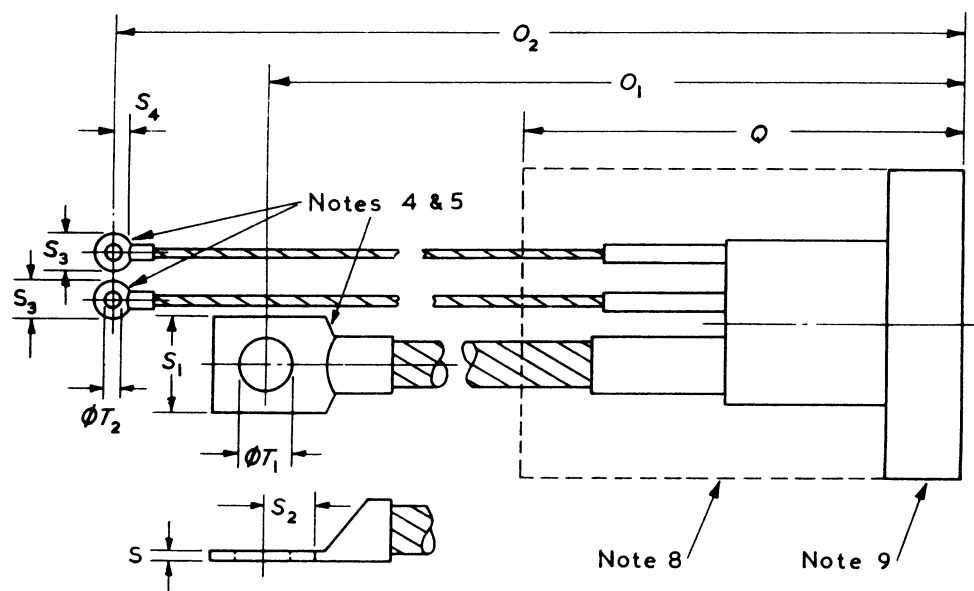
NOTE 6 Clearance hole for fixing screw of maximum diameter $\frac{3}{8}$ in.

NOTE 7 For details of the mounting flange see the associated base drawing specified by the manufacturer.

NOTE 8 For the bases at present known to be associated with this outline, see index of cross references.



SEMICONDUCTOR DEVICE OUTLINE SO-52A



The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
O_1	153.0		241.0		6.0		9.5	1
O_2	178.0		234.0		7.0		9.25	1
Q			88.9				3.50	2,3
S			3.17				0.125	
S_1			16.51				0.650	4,5
S_2	8.13				0.320			6
S_3			7.62				0.300	4,5
S_4	3.56				0.140			6
ϕT_1								7
ϕT_2	3.56		4.31		0.140		0.170	

NOTE 1 This lead is flexible; other lengths may be supplied if negotiated between manufacturer and user.

NOTE 2 The device, with the exception of the flexible leads, lies within the zone defined by dimension Q and the associated base drawing specified by the manufacturer.

NOTE 3 Q allows for the leads to be bent at right angles.

NOTE 4 The contour and orientation of the terminals are undefined.

NOTE 5 Identification of the terminals may be obtained from the manufacturer's data sheet.

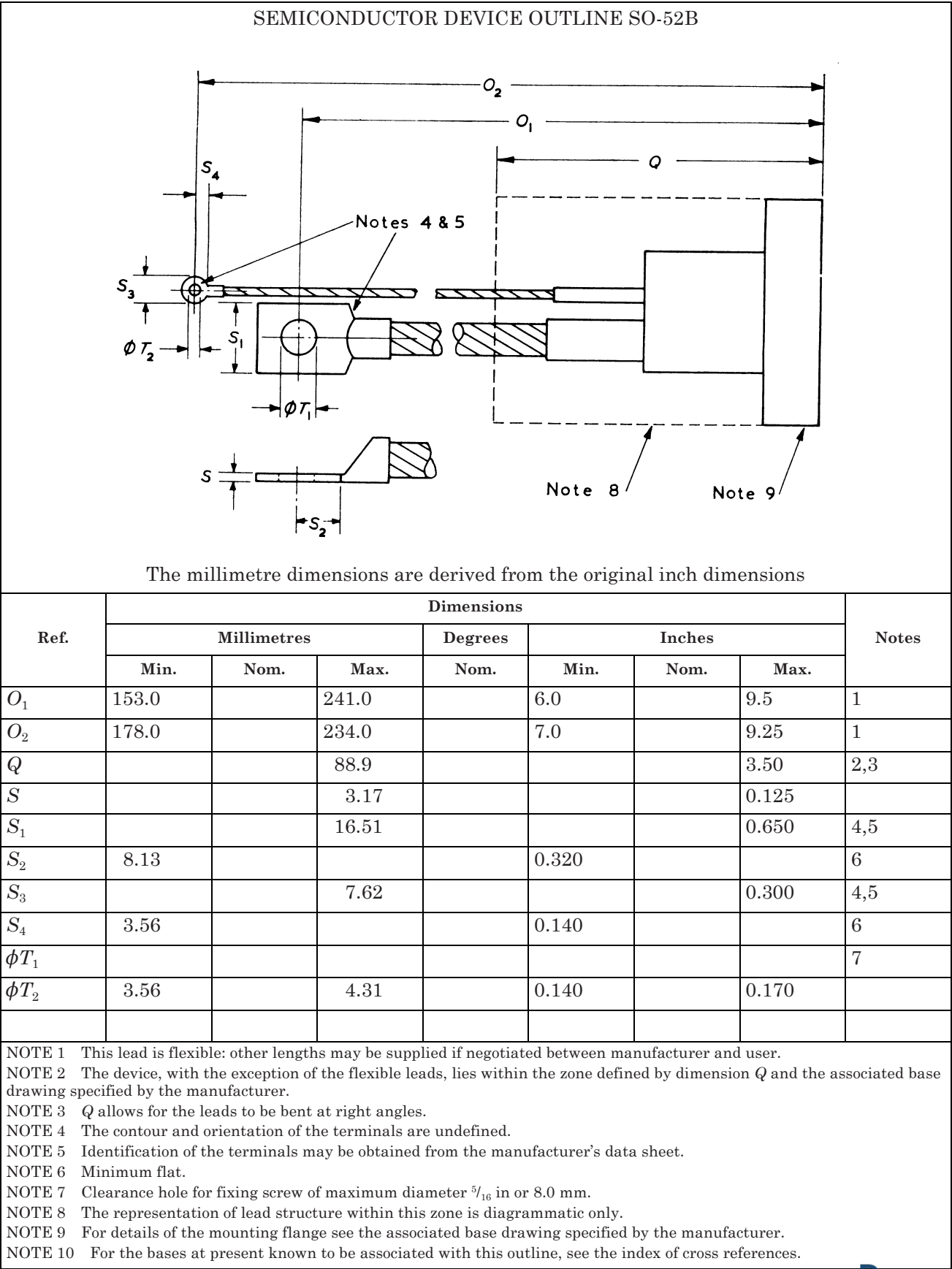
NOTE 6 Minimum flat.

NOTE 7 Clearance hole for fixing screw of maximum diameter $\frac{5}{16}$ in or 8.0 mm.

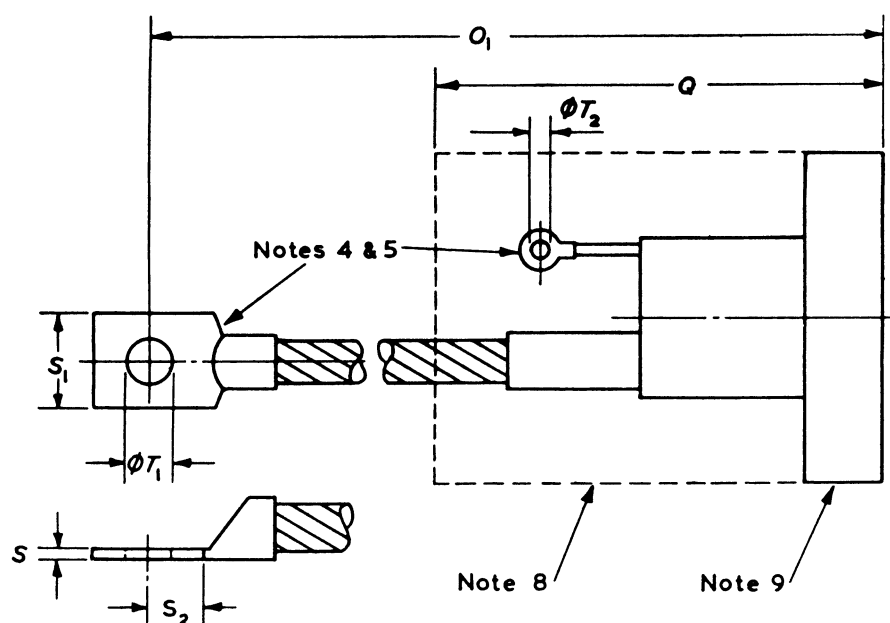
NOTE 8 The representation of lead structure within this zone is diagrammatic only.

NOTE 9 For details of the mounting flange see the associated base drawing specified by the manufacturer.

NOTE 10 For the bases at present known to be associated with this outline, see the index of cross references.



SEMICONDUCTOR DEVICE OUTLINE SO-52C



The millimetre dimensions are derived from the original inch dimensions

Ref.	Dimensions							Notes
	Millimetres			Degrees	Inches			
	Min.	Nom.	Max.	Nom.	Min.	Nom.	Max.	
O_1	153.0		241.0		6.0		9.50	1
Q			88.9				3.50	2,3
S			3.17				0.125	
S_1			16.51				0.650	4,5
S_2	8.13				0.320			6
ϕT_1								7
ϕT_2	1.53				0.060			

NOTE 1 This lead is flexible; other lengths may be supplied if negotiated between manufacturer and user.

NOTE 2 The device, with the exception of the flexible leads, lies within the zone defined by dimension Q and the associated base drawing specified by the manufacturer.

NOTE 3 Q allows for the leads to be bent at right angles.

NOTE 4 The contour and orientation of the terminals are undefined.

NOTE 5 Identification of the terminals may be obtained from the manufacturer's data sheet.

NOTE 6 Minimum flat.

NOTE 7 Clearance hole for fixing screw of maximum diameter $\frac{5}{16}$ in or 8.0 mm.

NOTE 8 The representation of lead structure within this zone is diagrammatic only.

NOTE 9 For details of the mounting flange see the associated base drawing specified by the manufacturer.

NOTE 10 For the bases at present known to be associated with this outline, see the index of cross references.

