

Silicon rectifier diodes and bridge modules

bridge modules (single phase)

book 1 part 4

DESIGN TYPES

Type No.	Drawing reference	INPUT				OUTPUT		
		V_I (RMS) (V)	V_{IRM} (V)	V_{IWM} (V)	I_{ISM} (A)	$I_{O(AV)}$ (A)	I_{ORM} (A)	
BY164	BQ	42	120	60	25	1.4	5	
BY225	BR	50	100	70	100	4.2	50	
-100 -200		80	200	112				
BY179	BQ	280	800	400	25	1	5	
BY224	BR	280	600	400	60	3.6	50	
-600 -850		280	850					
BYW44	BS1	140	200	200	40	4	15	
-200		280	400	400				
-400		420	600	600				
-600 -800		560	800	800				
BYW45	BT	140	300	200	75	6	75	
-200		280	600	400				
-400		420	900	600				
-600 -800		560	1200	800				
BYW46	BT	140	300	200	75	8	75	
-200		280	600	400				
-400		420	900	600				
-600 -800		560	1200	800				
BYW47	BT	140	300	200	180	12.5	180	
-200		280	600	400				
-400		420	900	600				
-600 -800		560	1200	800				

CURRENT TYPES

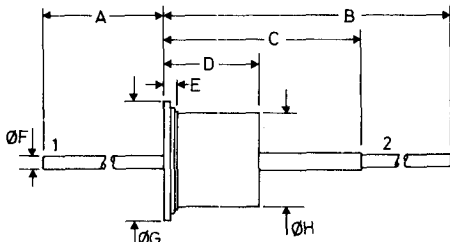
OSH007	BC3	570	1600	800	15	0.7	-
OSH01	BP	70	150	100	30	1	-
-100		140	300	200			
-200 -400		280	600	400			
OSH01A	BC1	70	150	100	30	1	-
-100		140	300	200			
-200 -400		280	600	400			
OSH02A	BC2	140	350	200	36	2	10
-200		280	650	400			
-400		420	950	600			
-600 -800		560	1250	800			
OSH03	BS2	140	200	200	55	3	15
-200		280	400	400			
-400		420	600	600			
-600 -800		560	800	800			
OSH05	BT	140	300	200	-	5	20
-200		280	600	400			
-400		420	900	600			
-600 -800		570	1200	800			
OSH07	BT	420	800	600	-	7	120
-600		570	800	800			
-800 -1000		710	1000	1000			
OSH10	BT	420	600	600	-	10	440
-600		570	800	800			
-800 -1000		710	1000	1000			
OSH10A	BT	140	300	200	165	10	60
-200		280	600	400			
-400		420	900	600			
-600 -800		570	1200	800			

OUTLINES and DIMENSIONS (millimetres)

A

B.S.3934 SO-16

DO-1
DO-2
DO-3

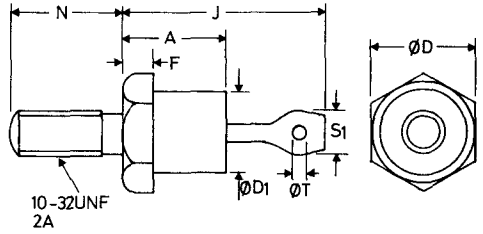


	1	2	A	B	C	D	E	ØF	ØG	ØH
A1	a	k	35	51	17	7.7	1.6	1.1	9.6	7.1
A2	k	a	35	49	17	8.5	1.9	1.1	9.7	7.1
A3	k	a	35	51	17	7.7	1.6	1.1	9.6	7.1

B

B.S.3934 SO-10

DO-4



A 10.3max.
ØD 11.1max.
ØD1 9.3max.
F 3.2

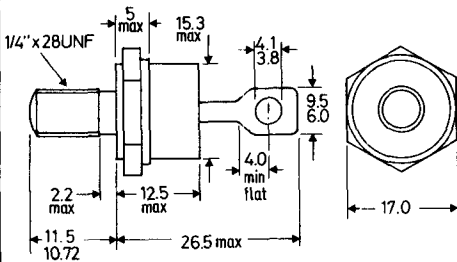
J 20.3max.
N 11.5max.
S1 4.8max
ØT 1.6min

	Stud	Eyelet
B1	k	a
B2	a	k

C

B.S.3934 SO-13

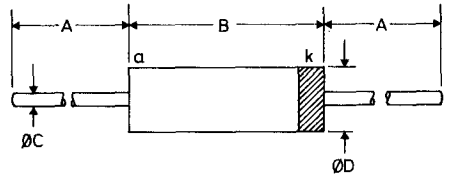
DO-5



	Stud	Eyelet
C1	k	a
C2	a	k

D

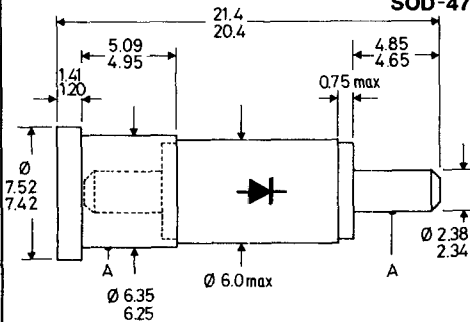
DO-7
DO-14
DO-15



		A	B	ØC	ØD
D1	DO-7	25.4	7.6	0.52	2.5
D2	DO-14	25.4	7.6	0.5	3.3
D3	DO-15	25.4	6.4	0.8	3.2

E

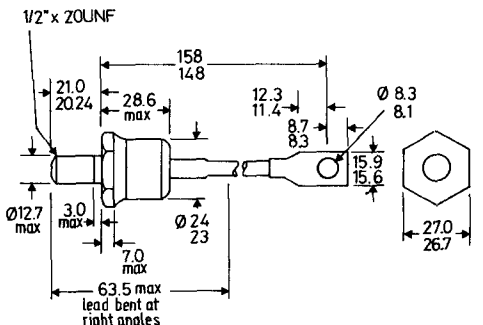
DO-22
SOD-47



A = concentricity tolerance = ± 0.20

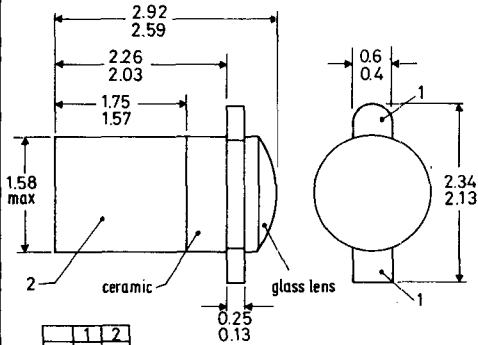
F

DO-30



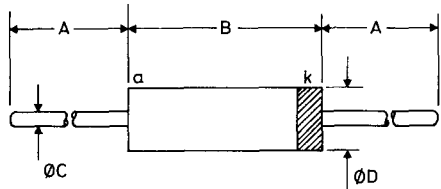
BZW86 Blue sleeve - anode to eyelet
BZW86R Red sleeve - anode to stud

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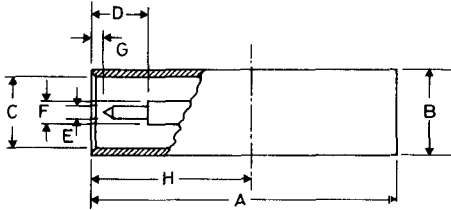
G**DO-31**

	1	2
G1	k	a
G2	e	c

For LED's the overall length = 3.60/2.97

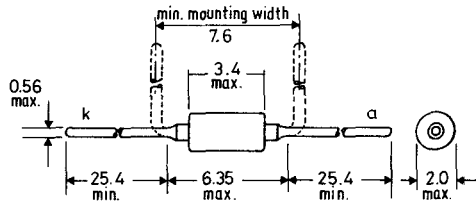
H**DO-35**

A	B	ØC	ØD
min.	max.	max.	max.
25.4	4.25	0.56	1.85

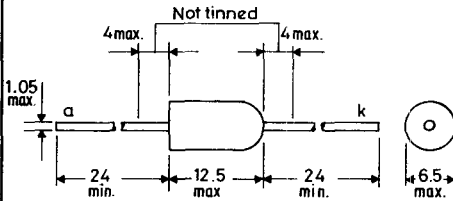
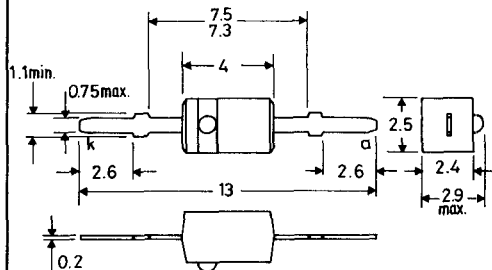
J**DO-37
SOD-49**

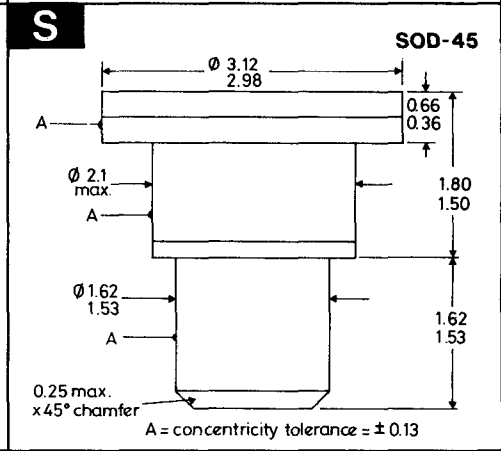
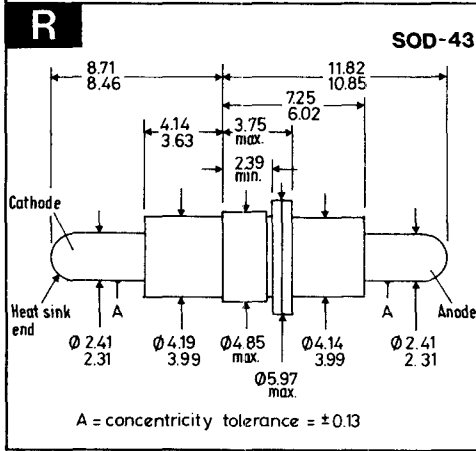
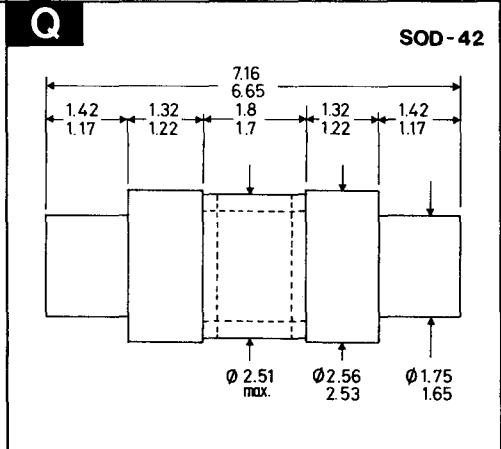
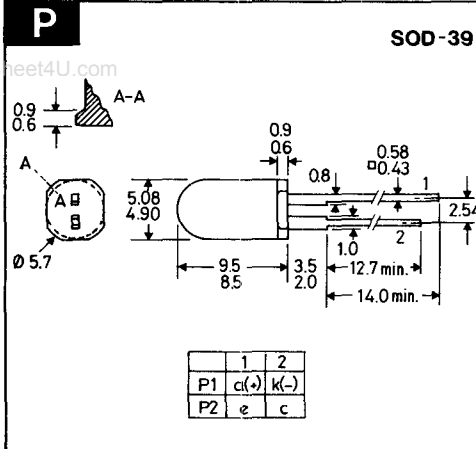
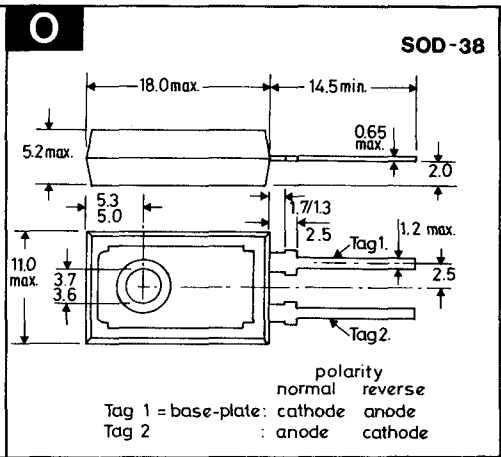
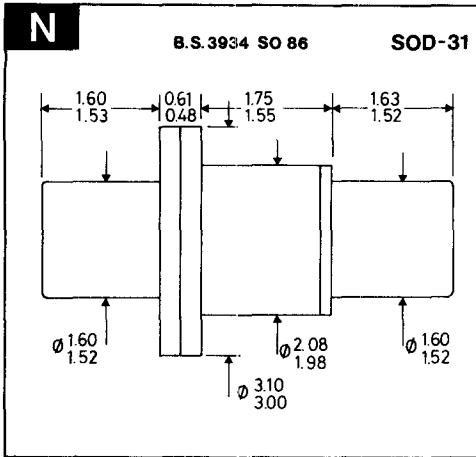
A	19.43/18.67	ØE	0.84/0.79
ØB*	5.59/5.49	ØF	1.57/1.52
ØC	4.80/4.72	G	0.71/0.15
D	3.73 min.	H	10.32 nom.

*These tolerances apply only over H

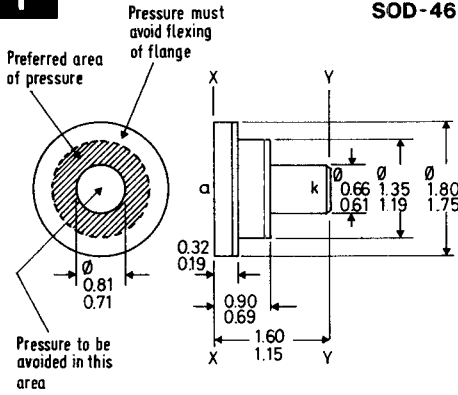
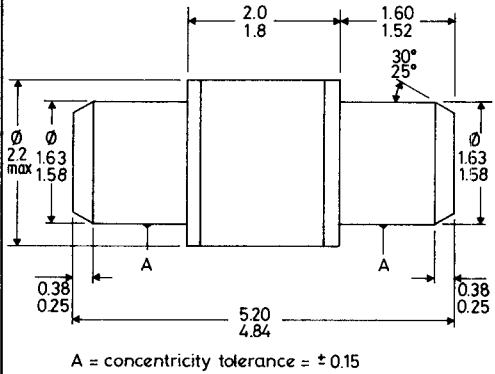
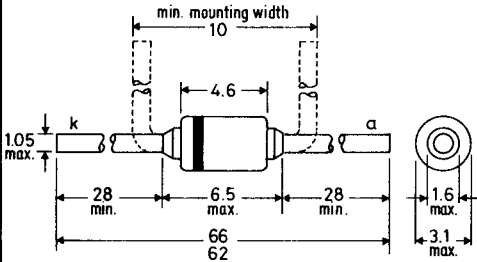
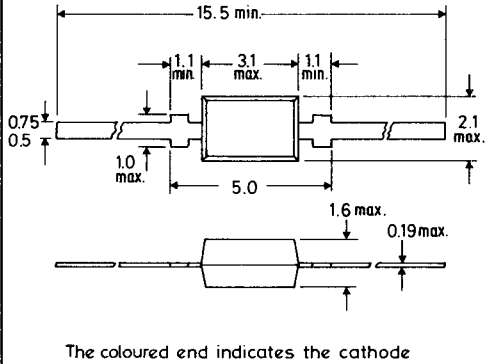
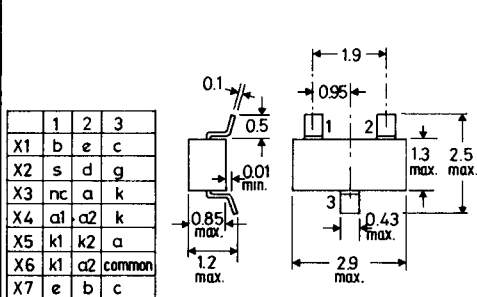
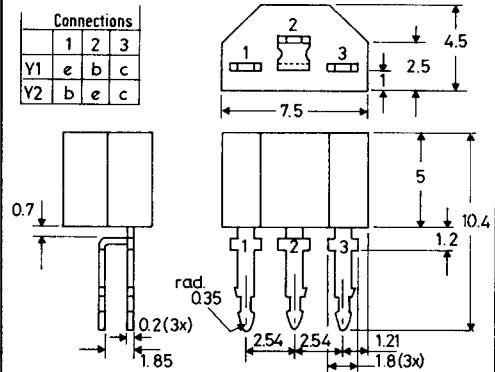
K**SOD-17**

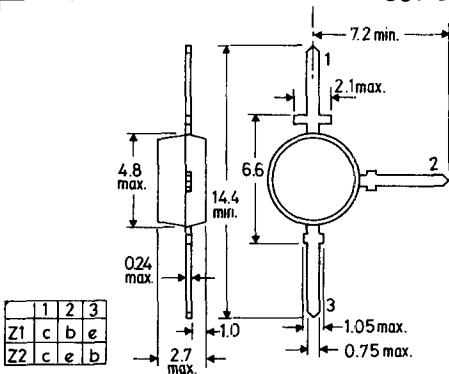
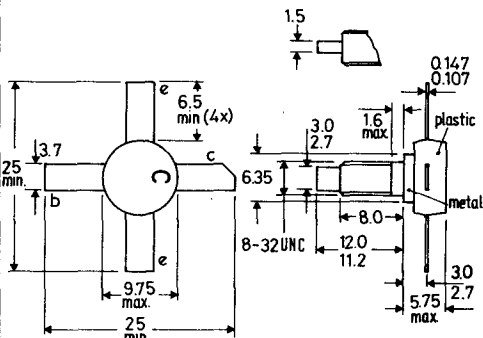
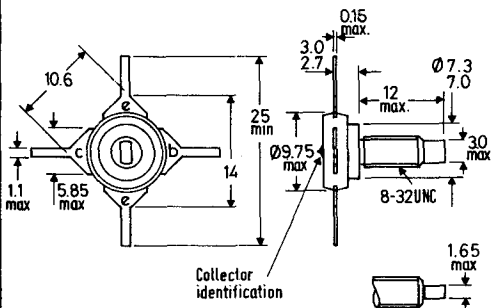
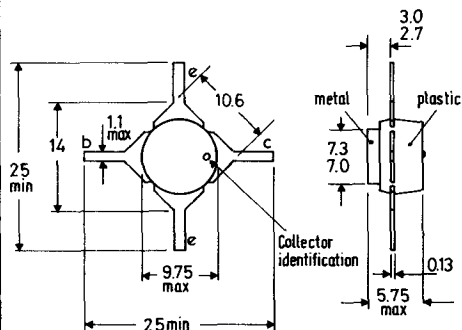
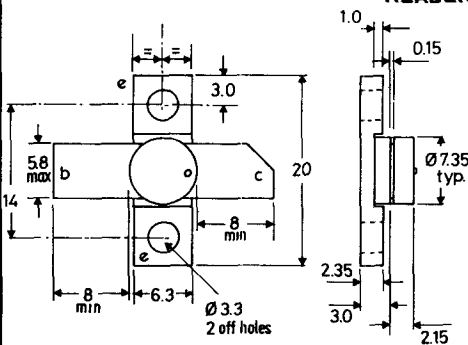
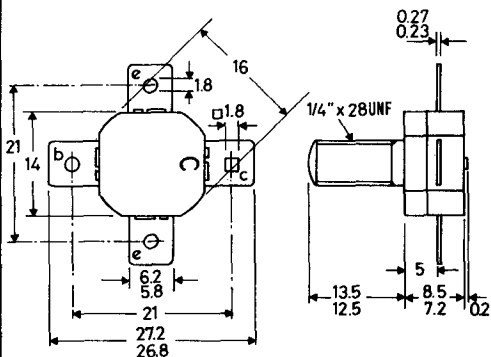
Cathode indicated by the broad band of colour code

L**SOD-18****M****SOD-23**



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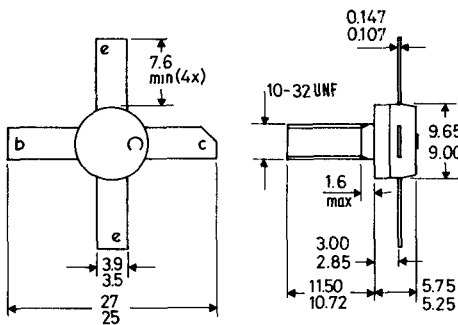
T**SOD-46****U****SOD-50****V****SOD-51****W****SOD-52****X****SOT-23****Y****SOT-25**

Z**SOT-37****AC****SOT-48/2****AD****SOT-48/3****AE****SOT-48/4****AF****SOT-48
HEADER****AG****SOT-55**

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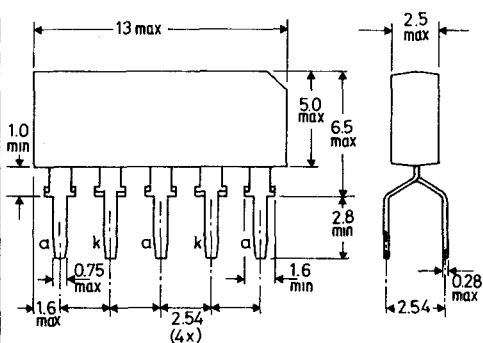
AH

SOT-56



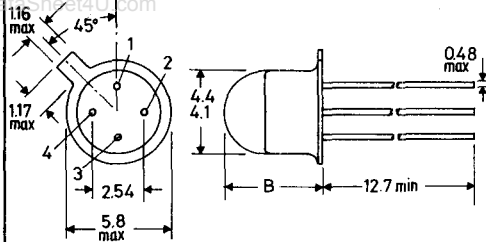
AJ

SOT-60



AK

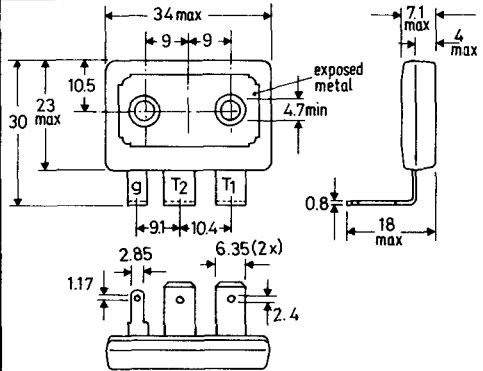
SOT-70



	1	2	3	4	B max
AK1	a	-	k	-	5.08
AK2	e	b	c	-	4.5
AK3	Vp	IP	GND	OP	5.08

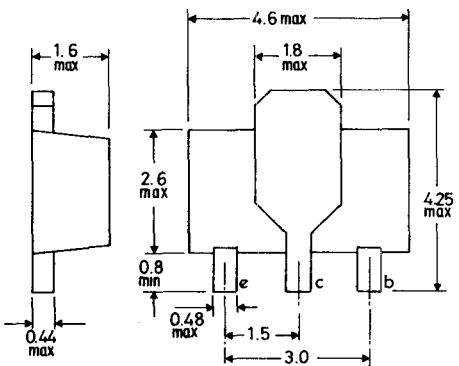
AL

SOT-80



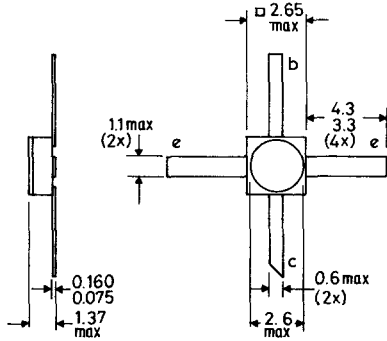
AM

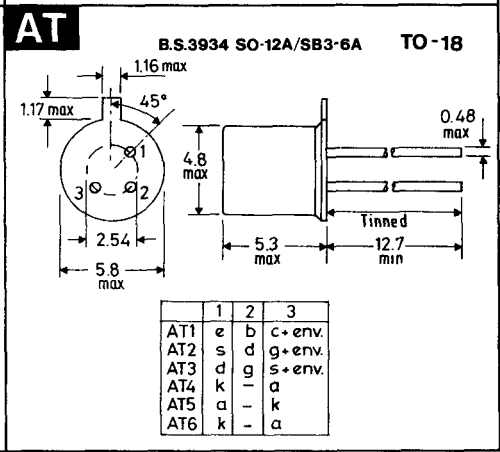
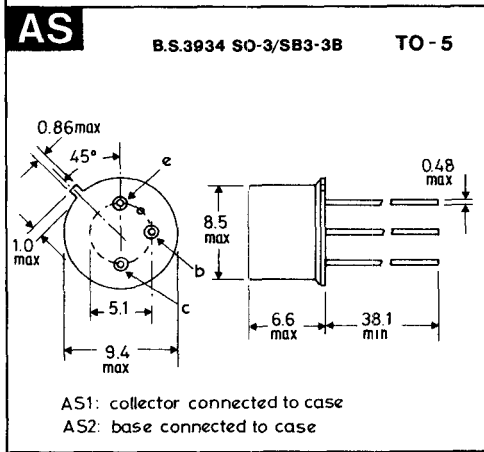
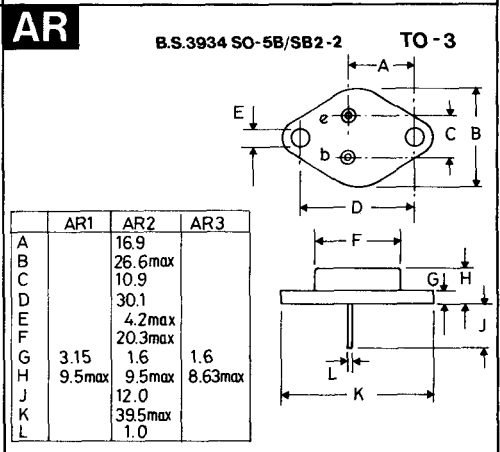
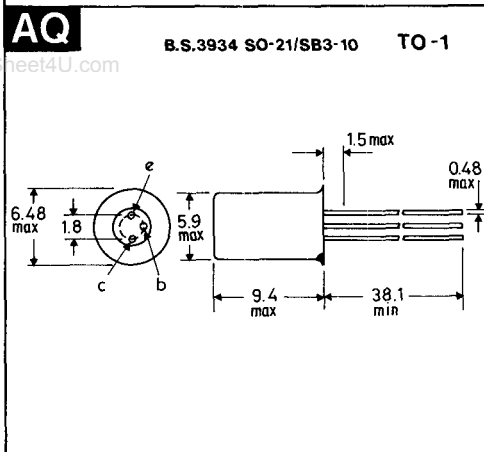
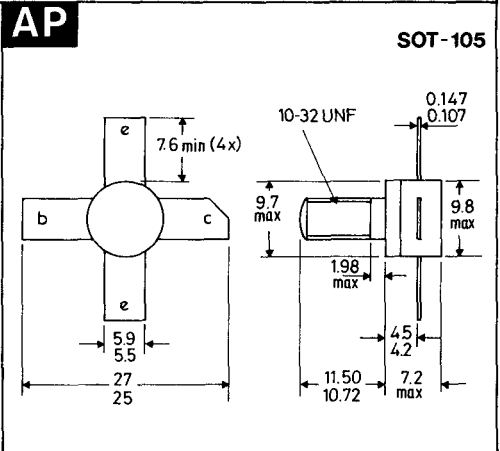
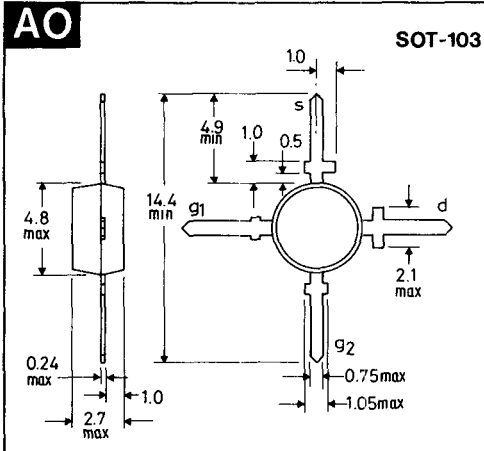
SOT-89



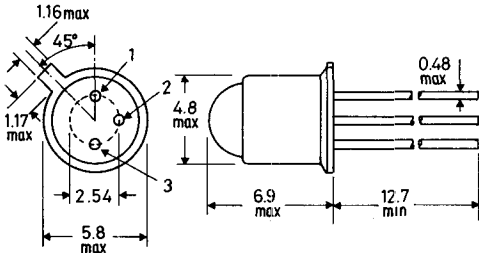
AN

SOT-100

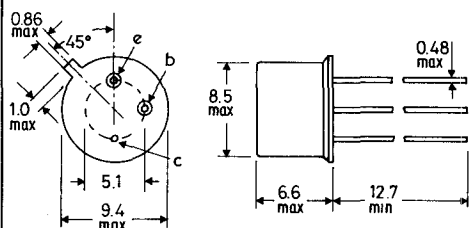




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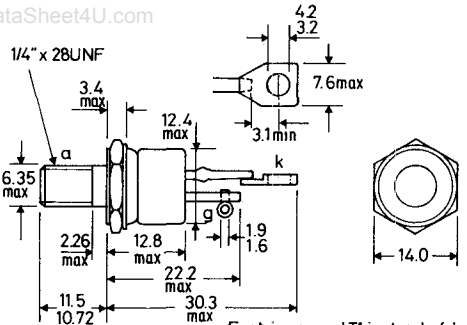
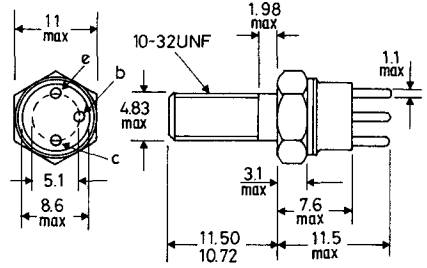
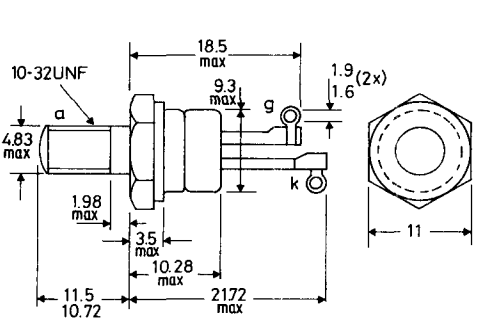
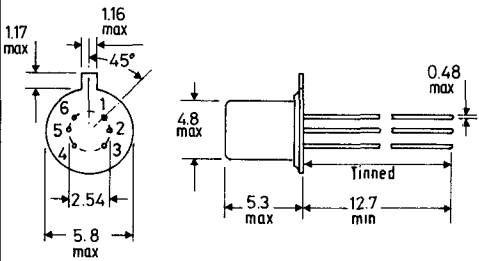
AU**TO-18**
(with lens)

	1	2	3
AU1	a	a	k
AU2	e	b	c+case
AU3	k	-	a

AV**B.S.3934 SO-3/SB3-3A TO-39**

AV1: b+case
 AV2: case isolated
 AV3: c+case
 AV4: e.cathode
 b.gate
 c.anode+case

AV5: e.b. cell connections
 c. metal case
 AV6: red spot indicates
 +ve connection

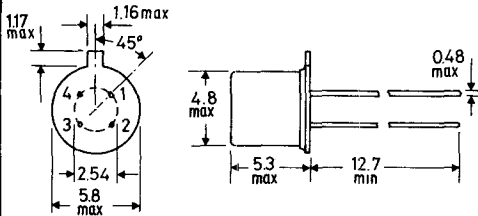
AW**B.S.3932 SO-36 TO-48****AX****TO-60****AY****B.S.3934 SO-35A TO-64****AZ****TO-71**

Pin	1	2	3	4	5	6
AZ1	e1	e2	c2	b2	b1	c1
AZ2	s1	d1	g1	s2	d2	g2

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BA

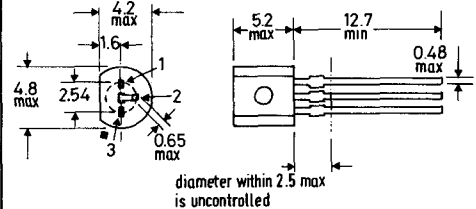
B.S.3934 SO-12A/SB4-3 TO-72



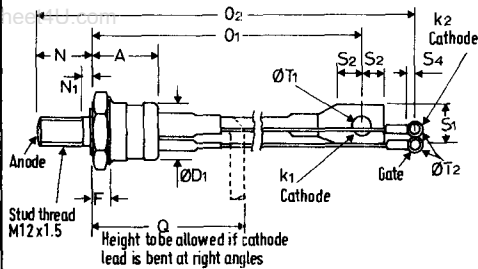
	1	2	3	4
BA1	b	e	c	s+envelope
BA2	e	b	c	s+envelope
BA3	s	d	g	screen+envelope
BA4	d	g	g	s+b+envelope
BA5	d	s	g	b+envelope
BA6	k	gk	ga	a

BBTO-92
variant

Pin	1	2	3
BB1	e	b	c
BB2	b	e	c
BB3	d	s	g
BB4	g	a	k
BB5	b	c	e

**BC**

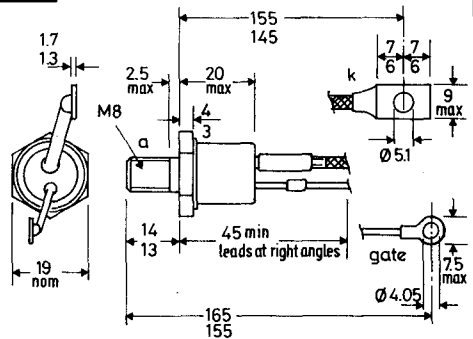
B.S.3934 SO-30C TO-94



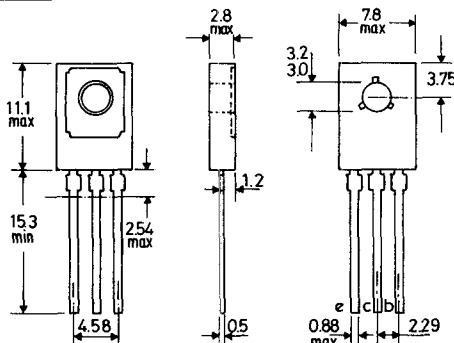
A	28.5max	O1	158 max	S4	3.8 min
ØD1	24.1max	O2	190max	ØT1	8.3max
F	8.9max	Q	63.5max	ØT2	4.2max
N	21.0max	S1	16.5max		
N1	3.0max	S2	9.6min		

BD

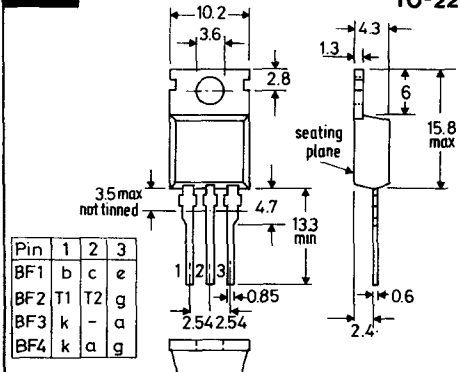
TO-103

For triacs read T1 instead of k
T2 instead of a**BE**

TO-126

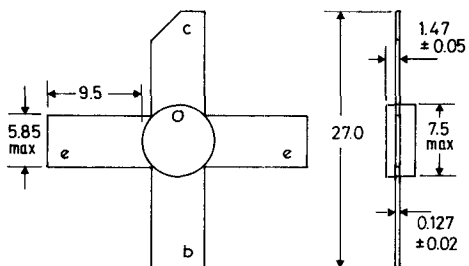
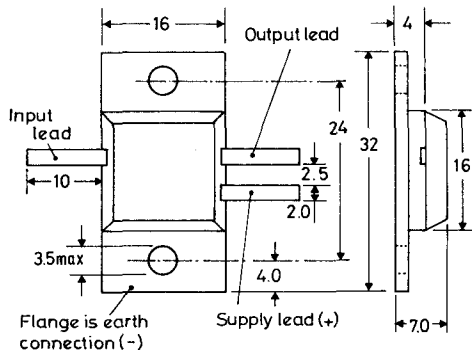
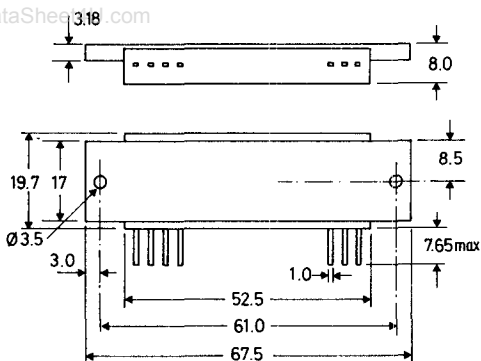
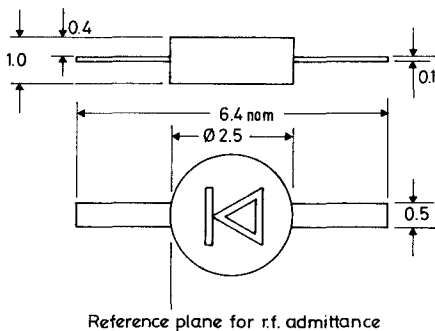
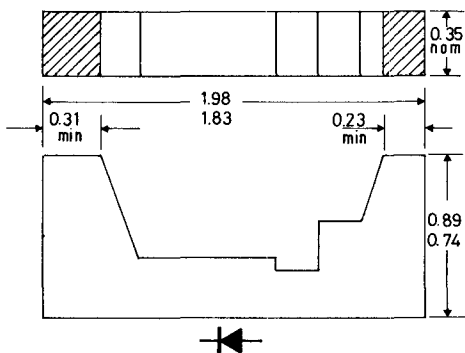
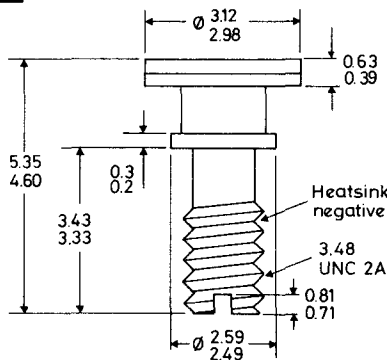
**BF**

TO-220



Pin	1	2	3
BF1	b	c	e
BF2	T1	T2	g
BF3	k	-	a
BF4	k	a	g

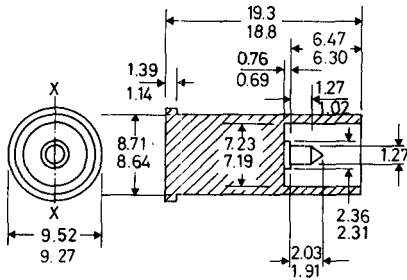
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BG**BH****BJ****BK****BL****BM**

BN

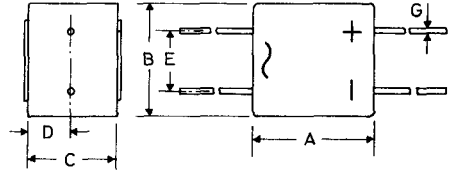
B.S.3934

SO-26

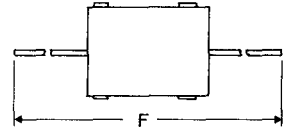


(All dimensions max.)

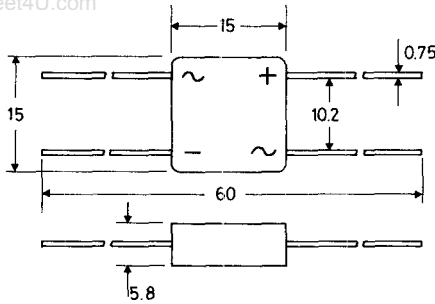
BO



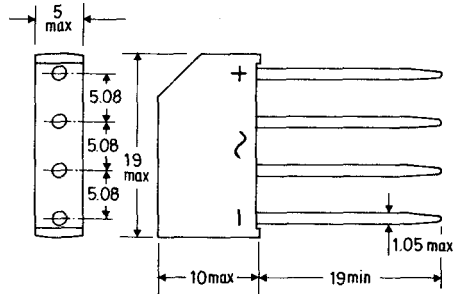
	BO1	BO2	BO3
A	12	20	12
B	10	19	10
C	8	15	8
D	4	7.5	4
E	5	10	5
F	58	60	48
G	0.75	1.0	1.1



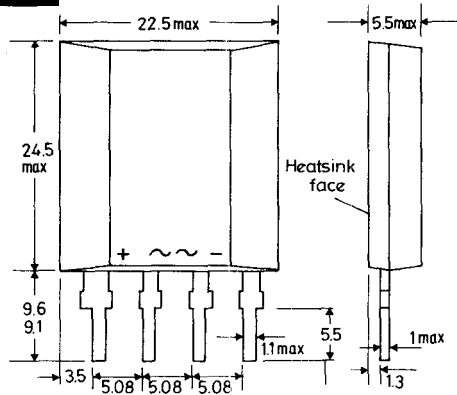
BP



BQ

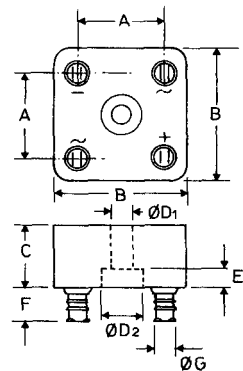


BR



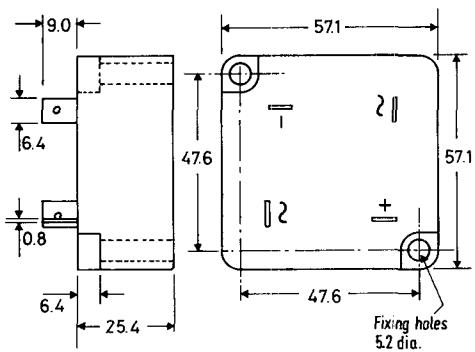
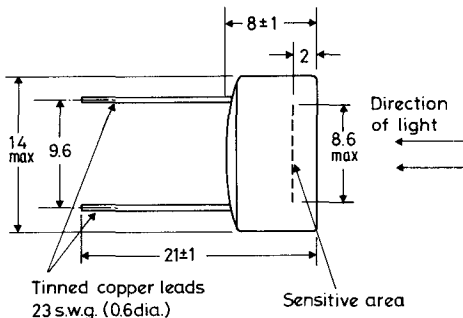
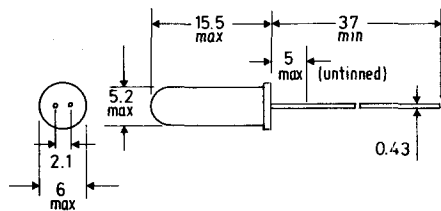
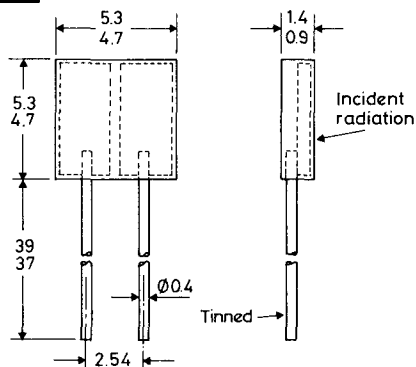
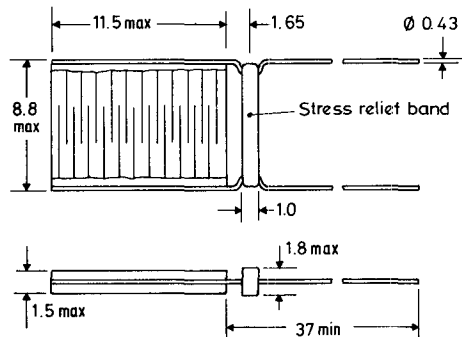
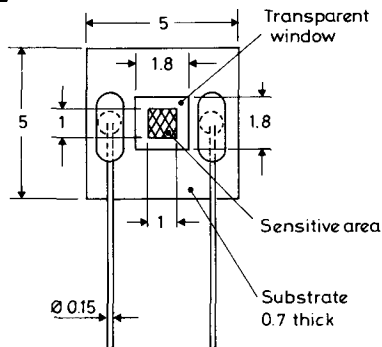
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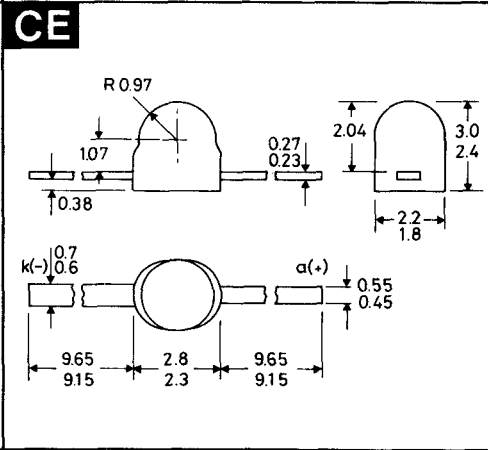
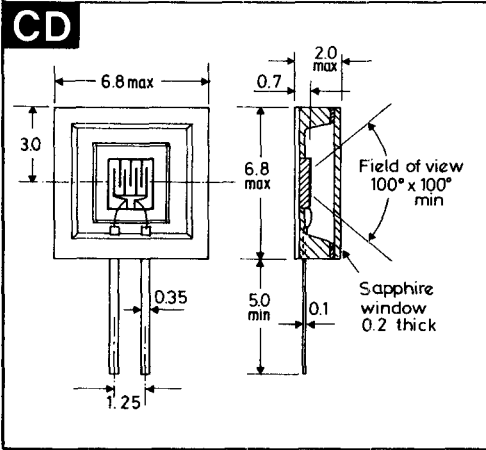
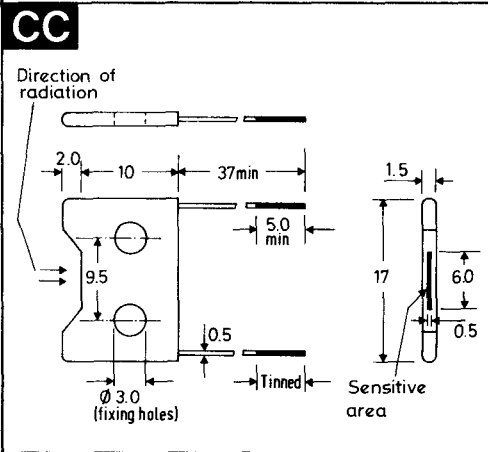
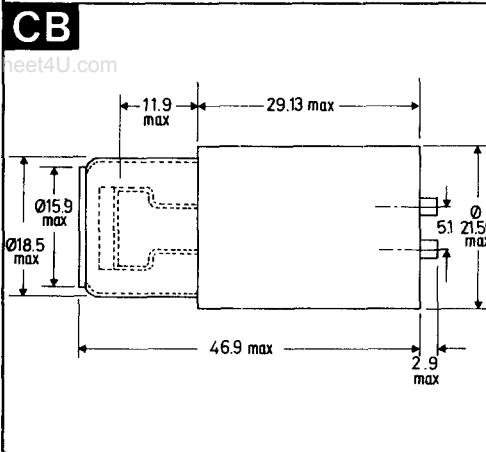
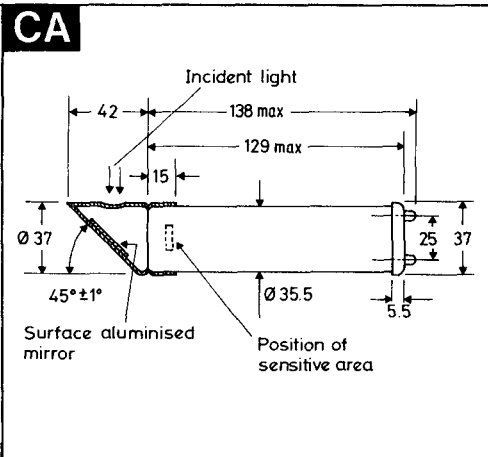
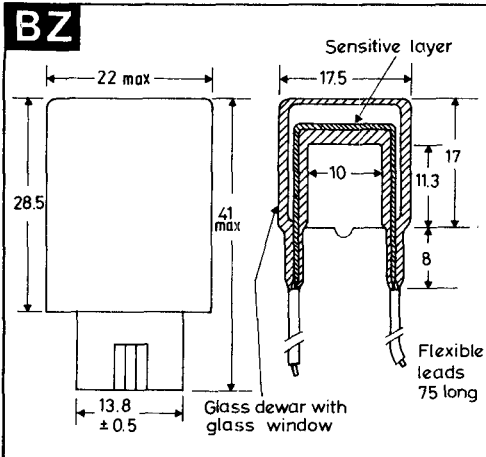
B.S.3934 SO-67



	BS1	BS2
	typ.	max.
A	23	21
B	35	34.6
C	17	15.2
ØD1	5	5.05
ØD2	11	11
E	5	3.7
F	9	9
ØG	4.8	4.8

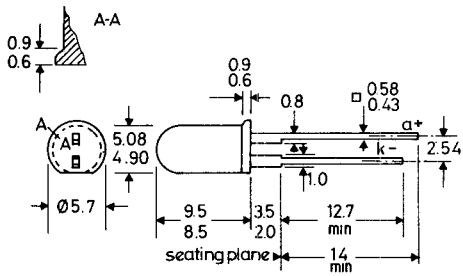
These drawings give limited information for quick reference purposes. For equipment design more complete information should be obtained from individual data sheets in the Technical Handbook or from standard B.S. or JEDEC outline drawings.

BT**BU****BV****BW****BX****BY**

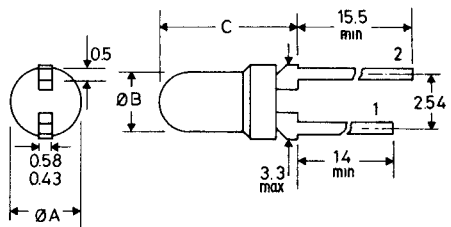


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CF

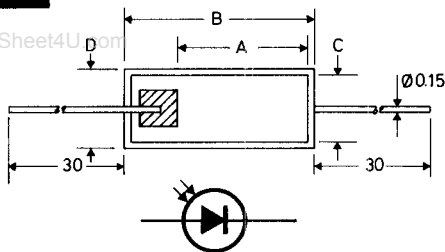


CG



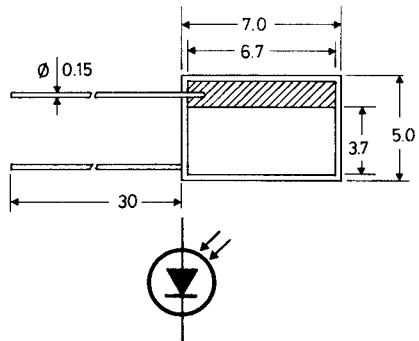
	1	2	$\varnothing A$	$\varnothing B$	C
CG1	k(-)	a(+)	3.0-3.17	2.4-2.6	5.8-6.3
CG2	a(+)	k(-)	3.0-3.17	2.4-2.6	5.8-6.3
CG3	k(-)	a(+)	3.3 max	2.65-3.17	4.8-6.3

CH

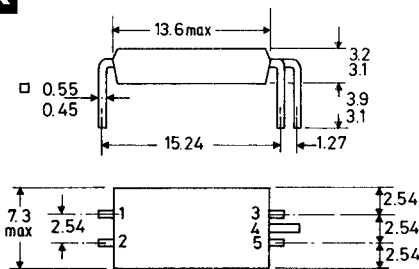


	CH1	CH2
A	2.2	3.5
B	3.35	4.55
C	0.95	1.85
D	1.25	2.15

CJ

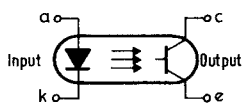
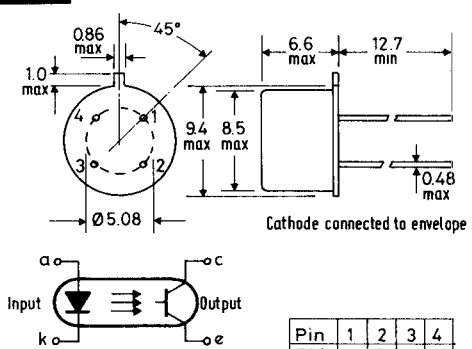


CK

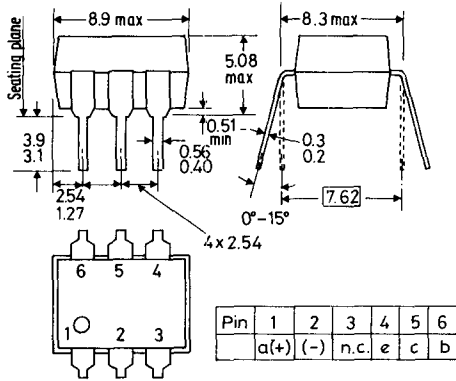
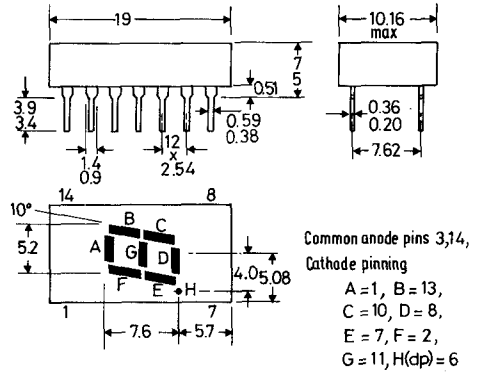
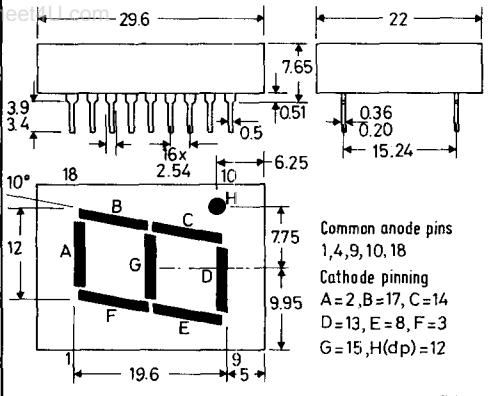


Pin	1	2	3	4	5
CK1	a	k	b	c	e
CK2	k	a	e	omitted	c

CL



Pin	1	2	3	4
CL1	a	k	e	c
CL2	e	c	a	k

CM**CN****CO**

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