

MOTOROLA CASE NUMBER CROSS REFERENCE

Case 1	TO-3	Case 49	—	Case 103	See Cases 133-136
Case 3	TO-3*	Case 51	DO-7	Case 104	See Cases 137-139
Case 3A	TO-3*	Case 52	DO-13	Case 105	—
Case 4	TO-41	Case 53	—	Case 106	—
Case 4-04	TO-41	Case 54	TO-3*	Case 107	—
Case 5	TO-36	Case 55	—	Case 108	—
Case 6	—	Case 56	DO-4	Case 109	—
Case 7	TO-68	Case 56A	DO-4	Case 110	—
Case 8	—	Case 56B	—	Case 111	—
Case 9	TO-61	Case 57	—	Case 112	—
Case 11	TO-3	Case 58	—	Case 113	—
Case 11A	TO-3*	Case 59	DO-41	Case 114	—
Case 12	TO-3*	Case 60	—	Case 115	—
Case 16	TO-41*	Case 61	TO-41	Case 116	—
Case 17	—	Case 62	—	Case 117	—
Case 19	—	Case 63	—	Case 118	—
Case 20	TO-72	Case 64	TO-48	Case 119	—
Case 21	TO-17	Case 68	—	Case 120	—
Case 22	TO-18	Case 70	—	Case 121	—
Case 22A	TO-18*	Case 71	See Case 602B	Case 122	—
Case 23	TO-107	Case 71A	See Case 602A	Case 123	—
Case 24	TO-102	Case 72	See Case 606	Case 124	—
Case 25	—	Case 73	See Case 608	Case 125	Formerly Case 101
Case 26	TO-46	Case 77	—	Case 126	Formerly Case 101
Case 27	TO-52	Case 79	TO-39	Case 127	Formerly Case 101
Case 28	—	Case 79A	—	Case 128	Formerly Case 101
Case 29	TO-92	Case 80	TO-66	Case 129	Formerly Case 102
Case 29A	—	Case 81	DO-31	Case 130	Formerly Case 102
Case 29B	See Case 182	Case 81A-01	—	Case 131	Formerly Case 102
Case 31	TO-5	Case 81A-02	—	Case 132	Formerly Case 102
Case 31A	Now Case 31 (2)	Case 82	—	Case 133	Formerly Case 103
Case 32	—	Case 83	TO-86	Case 134	Formerly Case 103
Case 32A	—	Case 85	—	Case 135	Formerly Case 103
Case 32B	TO-77	Case 85L	—	Case 136	Formerly Case 103
Case 32C	—	Case 86	—	Case 137	Formerly Case 104
Case 33	TO-89	Case 86L	—	Case 138	Formerly Case 104
Case 33A	—	Case 87	—	Case 139	Formerly Case 104
Case 34	—	Case 87L	—	Case 142	—
Case 34A	TO-12	Case 88	—	Case 143	TO-9
Case 35	TO-71	Case 88L	—	Case 144	—
Case 36	TO-60	Case 90	—	Case 144A	—
Case 39	TO-37	Case 91	—	Case 144B	—
Case 41	—	Case 92	—	Case 145	—
Case 42	DO-5	Case 93	See Case 605	Case 145A	—
Case 43	DO-21	Case 94	—	Case 145B	—
Case 44	DO-4	Case 96	See Case 601	Case 146	DO-14
Case 45	—	Case 96A	See Case 603	Case 149	TO-1
Case 45A	—	Case 98	See Case 604	Case 152	—
Case 46	—	Case 100	—	Case 154	—
Case 47	—	Case 101	See Cases 125-128	Case 154A	—
Case 47A	—	Case 102	See Cases 129-132	Case 155	—
Case 47B	—			Case 155A	—
Case 48	—			Case 156	—

*Modified

Case 156A
Case 157
Case 157A
Case 158
Case 159
Case 160
Case 160A
Case 161
Case 166
Case 167
Case 168
Case 169
Case 171
Case 172
Case 173

DO-4

DO-5

DO-7

DO-13

DO-14

DO-21

DO-31

DO-41

TO-1

TO-3

TO-3*

TO-5

TO-9

*Modified

MOTOROLA CASE NUMBER CROSS REFERENCE (continued)

Case 156A	—	Case 179	—	Case 605C	TO-116
Case 157	—	Case 180	—	Case 606	TO-91
Case 157A	—	Case 181	—	Case 607	Formerly Case 72
Case 158	—	Case 182	Formerly Case 29B	Case 607	TO-86
Case 159	—	Case 189	—	Case 608	Formerly Case 83
Case 160	TO-59	Case 190	—	Case 608	TO-90
Case 160A	TO-59	Case 601	TO-99	Case 609	Formerly Case 73
Case 161	TO-41	Case 602A	Formerly Case 96	Case 612	TO-85
Case 166	Formerly Case 28A	Case 602B	Formerly Case 71A	Case 614	—
Case 167	—	Case 602C	Formerly Case 71	Case 617	—
Case 168	—	Case 603	Formerly Case 89	Case 618	—
Case 169	Formerly Case 59A	Case 604	TO-100	Case 619	—
Case 171	—	Case 605	Formerly Case 96A	Case 620	—
Case 172	—		Formerly Case 98		
Case 173	—		TO-116		
			Formerly Case 93		

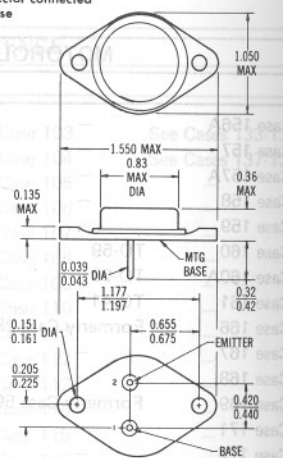
REGISTERED CASE NUMBER CROSS REFERENCE

DO-4	Case 44	TO-12	Case 34A	TO-72	Case 20
	Case 56	TO-17	Case 21	TO-77	Case 32B
	Case 56A	TO-18	Case 22	TO-85	Case 609
DO-5	Case 42	TO-18*	Case 22A	TO-86	Case 83
DO-7	Case 51	TO-36	Case 5		Case 607
DO-13	Case 52	TO-37	Case 39		
DO-14	Case 146	TO-39	Case 79	TO-89	Case 33
DO-21	Case 43			TO-90	Case 608
DO-31	Case 81	TO-41	Case 4		(Formerly Case 73)
DO-41	Case 59		Case 4-04	TO-91	Case 606
TO-1	Case 149		Case 16		(Formerly Case 72)
TO-3	Case 1		Case 61	TO-92	Case 29
	Case 11	TO-46	Case 161	TO-99	Case 601
TO-3*	Case 3	TO-48	Case 26		(Formerly Case 96)
	Case 3A	TO-52	Case 64	TO-100	Case 603
	Case 11A	TO-59	Case 27		(Formerly Case 96A)
	Case 12		Case 160	TO-102	Case 24
	Case 54	TO-60	Case 160A	TO-107	Case 23
TO-5	Case 31	TO-61	Case 9	TO-116	Case 605
TO-9	Case 143	TO-66	Case 80		(Formerly Case 93)
		TO-68	Case 7		Case 605C
		TO-71	Case 35		

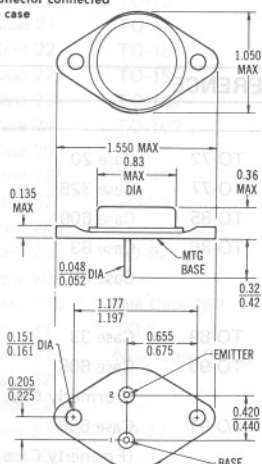
*Modified

All dimensions are in inches

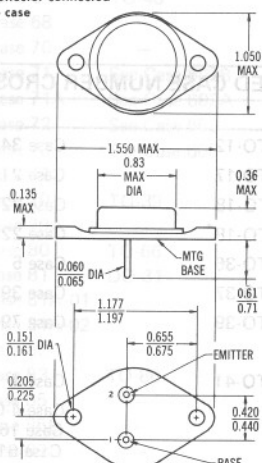
Collector connected
to case



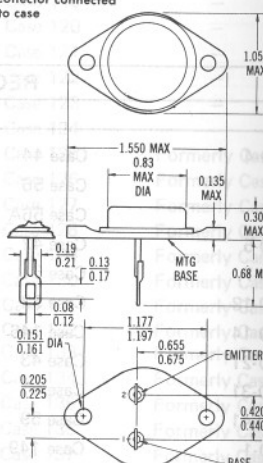
Collector connected
to case

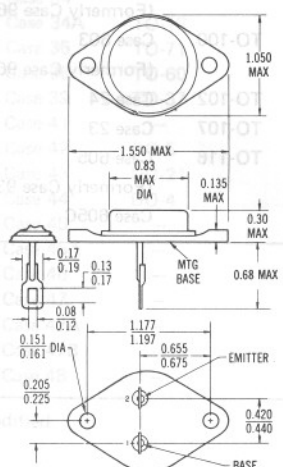


Collector connected
to case

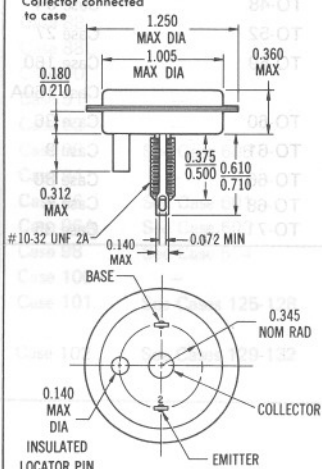


Collector connected
to case

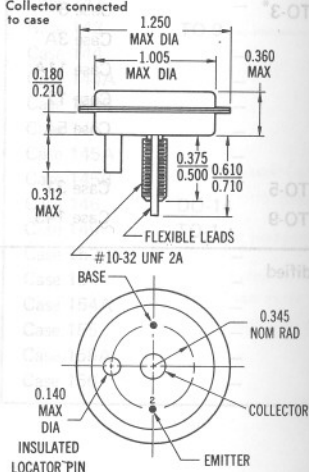




Collector connected
to case



Collector connected
to case



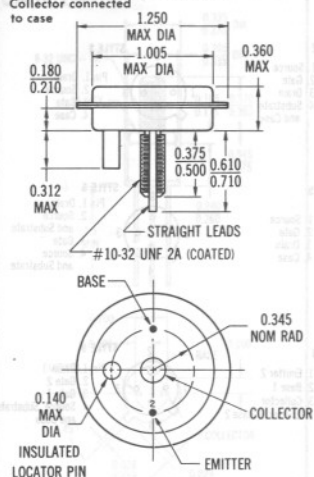
Collector connected
to case



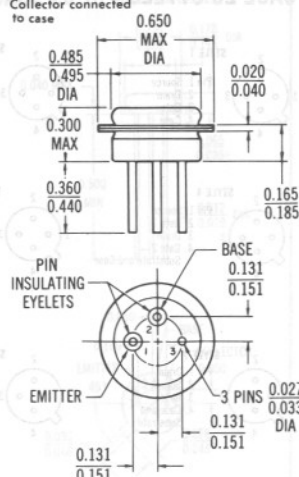
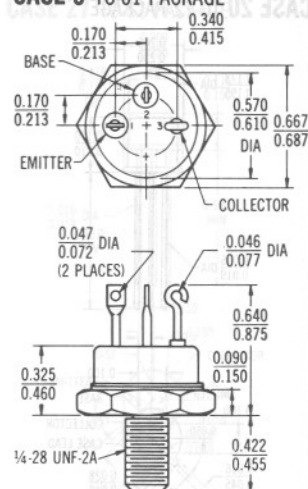
Collector connected
to case

CASE 7 TO-68 PACKAGE

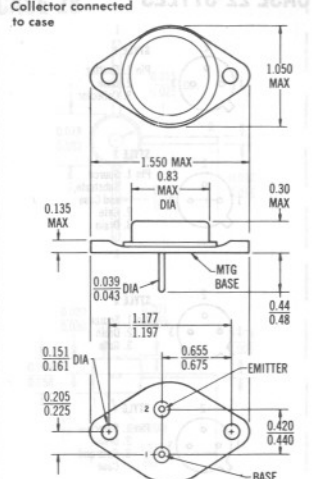
Collector connected to case

**CASE 8**

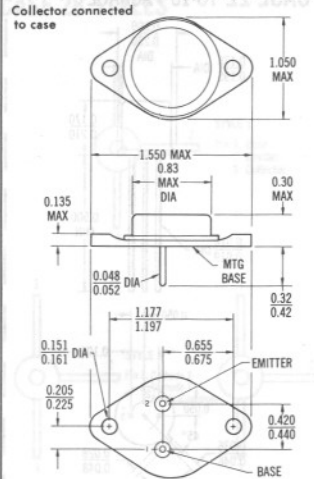
Collector connected to case

**CASE 9 TO-61 PACKAGE****CASE 11 TO-3 PACKAGE**

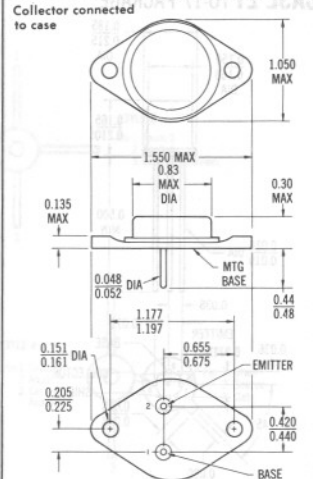
Collector connected to case

**CASE 11A (TO-3 Except Pin Diameter)**

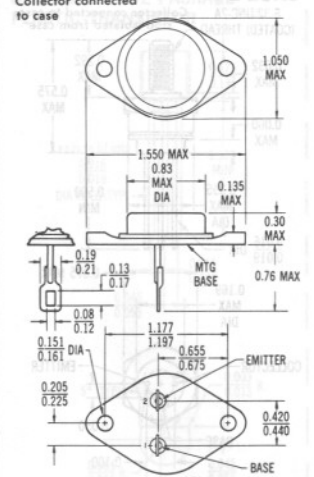
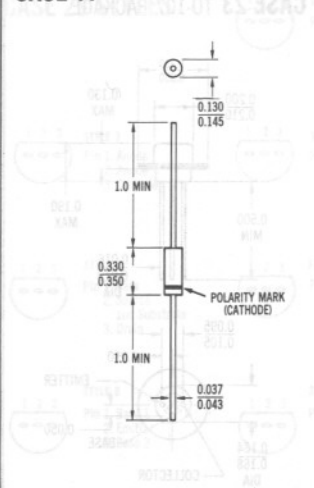
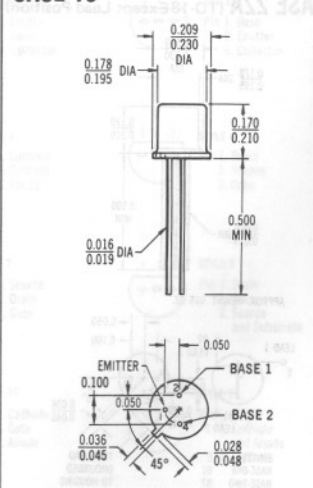
Collector connected to case

**CASE 12 (TO-3 Except Pin Diameter)**

Collector connected to case

**CASE 16 (TO-41 Except Lug Length)**

Collector connected to case

**CASE 17****CASE 19**

The drawing shows a TO-18 package with the following dimensions:

- Top View:**
 - Emitter diameter: 0.016 DIA (max), 0.019 DIA (min)
 - Base diameter: 0.050
 - Collector diameter: 0.100
 - Case lead diameter: 0.028 (max), 0.048 (min)
 - Case lead angle: 45°
 - Emitter offset from base center: 0.100
 - Base offset from collector center: 0.050
- Side View:**
 - Emitter diameter: 0.178 DIA (max), 0.195 DIA (min)
 - Base diameter: 0.209 DIA (max), 0.230 DIA (min)
 - Base to case lead height: 0.170 (max), 0.210 (min)
 - Case lead length: 0.500 MIN

STYLE 1

Pin 1: Source
Pin 2: Drain
Pin 3: Gate
Pin 4: Case

STYLE 2

Pin 1: Source
Pin 2: Gate
Pin 3: Drain
Pin 4: Substrate and Case

STYLE 3

Pin 1: Drain
Pin 2: Source
Pin 3: Gate
Pin 4: Case

STYLE 4

Pin 1: Source
Pin 2: Gate
Pin 3: Drain
Pin 4: Gate 2 ---
Substrate and Case

STYLE 5

Pin 1: Source
Pin 2: Gate
Pin 3: Drain
Pin 4: Case

STYLE 6

Pin 1: Drain
Pin 2: Source and Substrate
Pin 3: Gate
Pin 4: Source and Substrate

STYLE 7

Pin 1: Drain
Pin 2: Source
Pin 3: Gate
Pin 4: Case and Substrate

STYLE 8

Pin 1: Emitter 2
Pin 2: Base 1
Pin 3: Collector
Pin 4: Emitter 1, Base 2

Technical drawing of a 2N3638 PNP silicon transistor. The drawing includes the following dimensions and labels:

- Top View Dimensions:**
 - Emitter: 0.036 (width), 0.071 (radius)
 - Base: 0.036 (width), 0.071 (radius)
 - Collector: 0.028 (width), 0.048 (radius)
 - Shield: 0.030 (width), 0.045 (radius)
 - Angle: 45°
- Side View Dimensions:**
 - Top diameter: 0.185 (overall), 0.215 (DIA)
 - Base diameter: 0.150 (overall), 0.168 (DIA)
 - Base thickness: 0.165 (overall), 0.210 (DIA)
 - Lead diameter: 0.016 (overall), 0.019 (DIA)
 - Lead length: 0.500 MIN
- Labels:**
 - EMITTER
 - BASE
 - COLLECTOR
 - SHIELD

STYLE 1

Pin 1. Emitter
Pin 2. Base
Pin 3. Collector

STYLE 2

Pin 1. Source
Substrate, and Case
Pin 2. Gate
Pin 3. Drain

STYLE 3

Pin 1. Source
Pin 2. Drain
Pin 3. Gate

STYLE 4

Pin 1. Source
Pin 2. Drain
Pin 3. Gate and Case

APPROX. WEIGHT .015 OZ.

LEAD 1
E
B1
LEAD 2
B2
LEAD 3
0.050
0.100
0.028
0.048
45°
0.036
0.046
THIS LEAD
GROUND TO
HOUSING

Technical drawing of a probe tip, showing side and end views with dimensions.

Side View Dimensions:

- Top width: 0.330
- Top width (inner): 0.350
- Top width (outer): 0.200
- Top width (inner): 0.210
- Top width (outer): 0.130 MAX
- Top width (inner): 0.190 MAX
- Bottom width: 0.500 MIN
- Bottom width (inner): 0.016
- Bottom width (outer): 0.019 DIA

End View Dimensions:

- Top width: 0.095
- Top width (inner): 0.105
- Top width (outer): 0.050
- Top width (inner): 0.050
- Top width (outer): 0.050
- Bottom width: 0.164
- Bottom width (inner): 0.168
- Bottom width (outer): 0.168 DIA

Labels:

- EMITTER
- BASE
- COLLECTOR

6-32 UNC-2A (COATED) THREAD

Collector connected to case; stud isolated from case

0.032 MAX

0.292 MAX

0.575 MAX

0.060 MAX

0.355 MAX DIA

0.500 MIN

0.016 DIA

0.019 DIA

0.375 MAX

0.169 MAX DIA

COLLECTOR

EMITTER

0.050

BASE

0.100

0.050

8-32 UNC - 2A

1/4 HEX

1.5 MIN

0.20

0.10

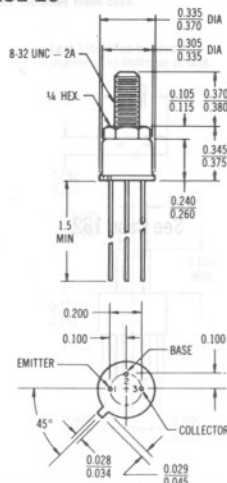
EMITTER

45°

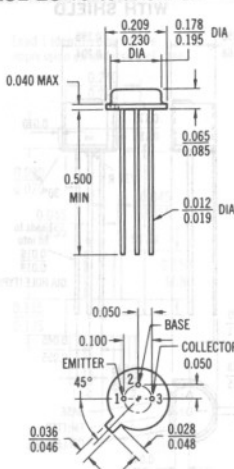
Technical drawing of a mechanical part with the following dimensions and features:

- Top View:**
 - Overall width: 0.250 (MAX)
 - Overall height: 0.100 (MAX)
 - Internal width: 0.016
 - Internal height: 0.019
 - Feature: DIA HOLE (TYP)
- Side View:**
 - Overall height: 0.040
 - Internal height: 0.020
 - Feature: 5° (TYP) →
 - Bottom dimension: 0.085 R -
 - Bottom dimension: 0.095 R -

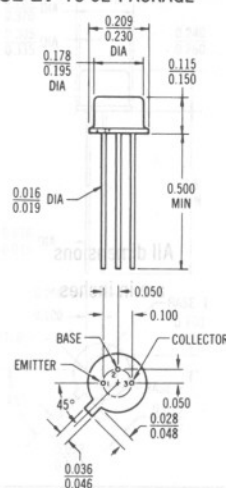
CASE 25



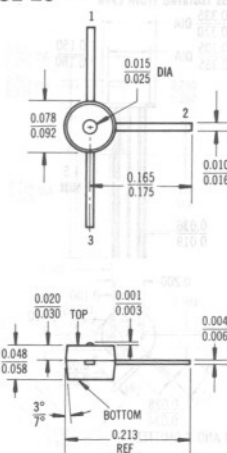
CASE 26 TO-46 PACKAGE



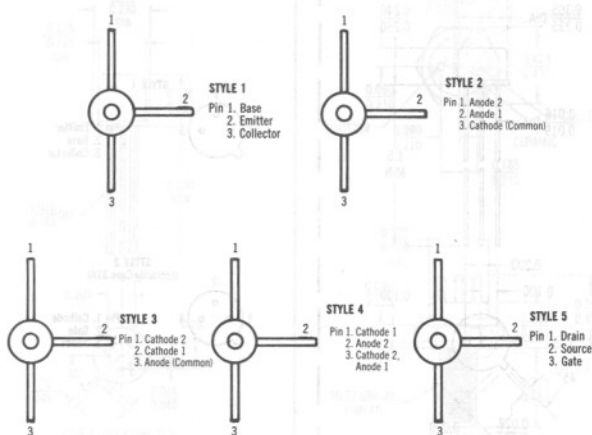
CASE 27 TO-52 PACKAGE



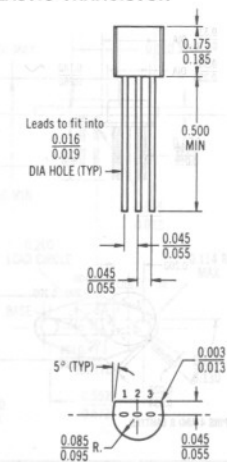
CASE 28



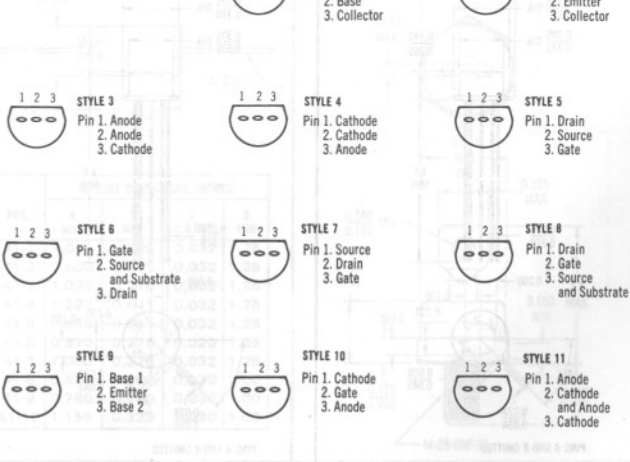
CASE 28 STYLES



CASE 29 TO-92 PACKAGE PLASTIC TRANSISTOR

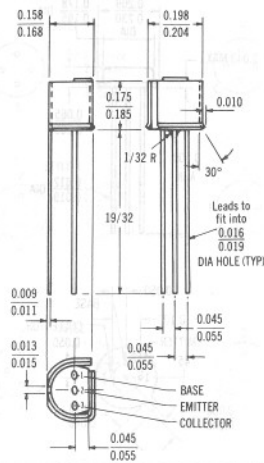


CASE 29 STYLES



All dimensions
are in inches

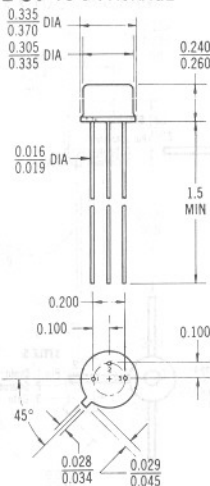
CASE 29A PLASTIC TRANSISTOR WITH SHIELD



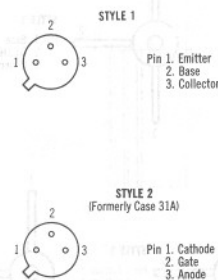
CASE 29B

See Case 182

CASE 31 TO-5 PACKAGE

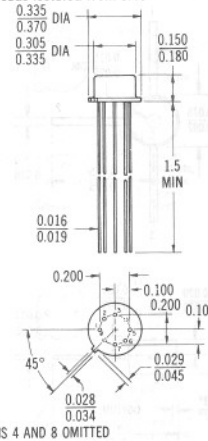


CASE 31 STYLES



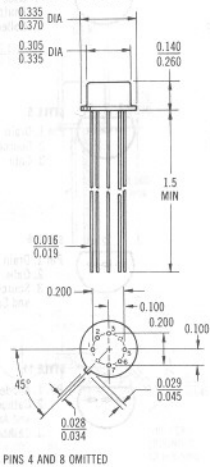
CASE 32

All leads isolated from case



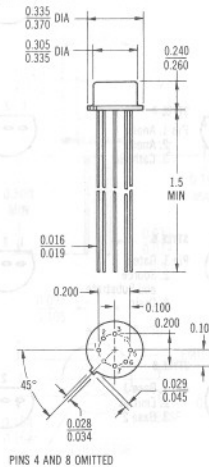
CASE 32A

All leads isolated from case



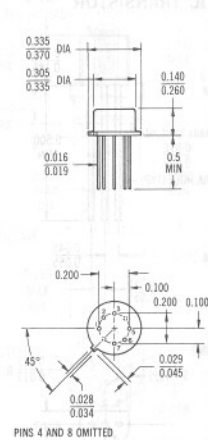
CASE 32B TO-77 PACKAGE

All leads isolated from case



CASE 32C

All leads isolated from case



CASE 33 TO-8

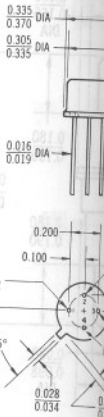
All leads isolated from case

Lead 1 is
impressed

0.030
0.070
0.045
0.055
0.120
0.150
0.095
0.105

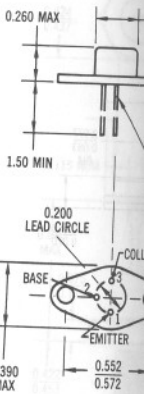
CASE 34A TO-18

Collectors connected to case



CASE 39 TO-37 PA

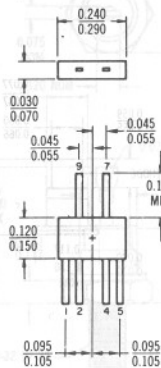
Collector connected to case



CASE 33 TO-89 PACKAGE

All leads isolated from case

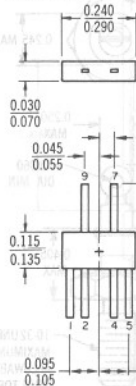
Lead 1 identified by square impression on underside of case.



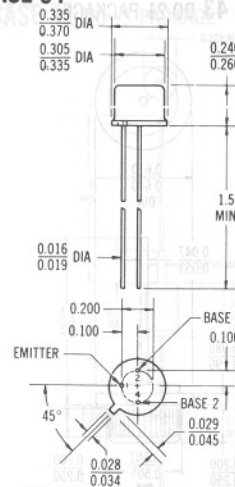
CASE 33A

All leads isolated from case

Lead 1 identified by square impression on underside of case.

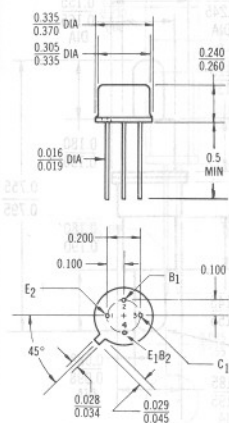


CASE 34



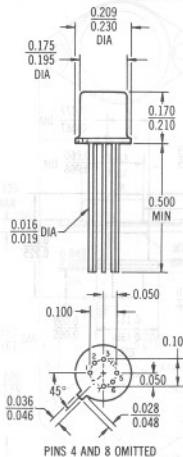
CASE 34A TO-12 PACKAGE

Collectors connected to case

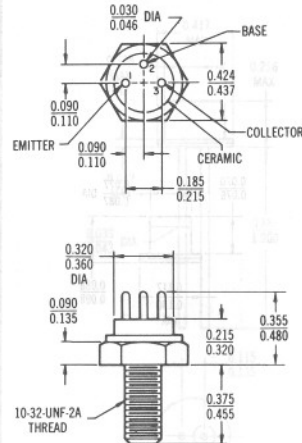


CASE 35 TO-71 PACKAGE

All leads isolated from case

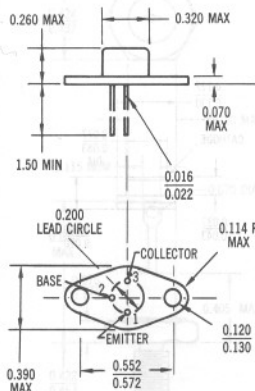


CASE 36 TO-60 PACKAGE

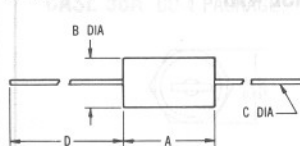


CASE 39 TO-37 PACKAGE

Collector connected to case

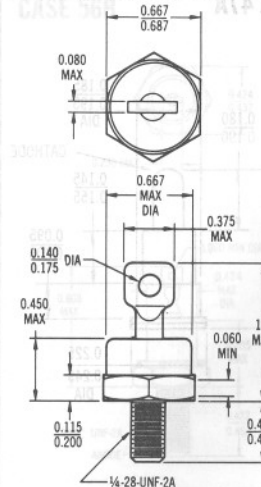


CASE 41

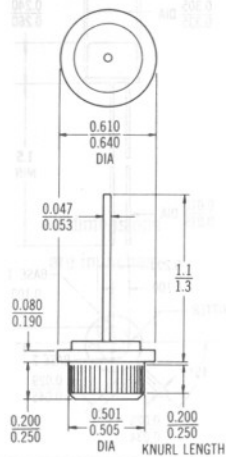


PKG.	OUTLINE DIMENSIONS (INCHES)			
	A MAX	B MAX	C ±0.002	D MIN
41-1	1.00	0.500	0.032	1.25
41-2	0.500	0.375	0.032	1.25
41-3	1.030	0.378	0.032	1.25
41-4	1.220	0.641	0.032	1.75
41-5	0.655	0.641	0.032	1.25
41-6	0.520	0.275	0.020	1.25
41-7	1.000	0.375	0.032	1.25
41-8	0.520	0.260	0.030	1.00
41-9	0.780	0.260	0.030	1.00
41-10	1.155	0.323	0.030	1.00

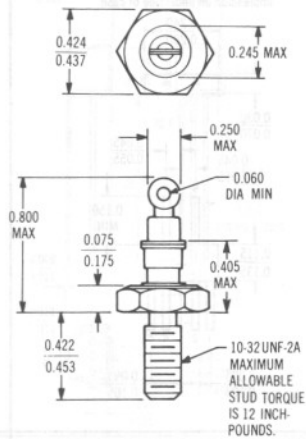
CASE 42 DO-5 PACKAGE



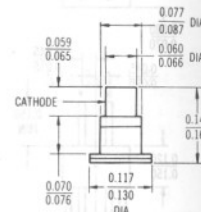
CASE 43 DO-21 PACKAGE



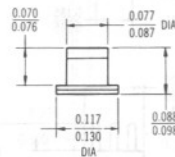
CASE 44 DO-4 PACKAGE



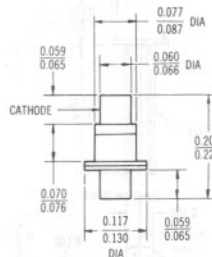
CASE 45



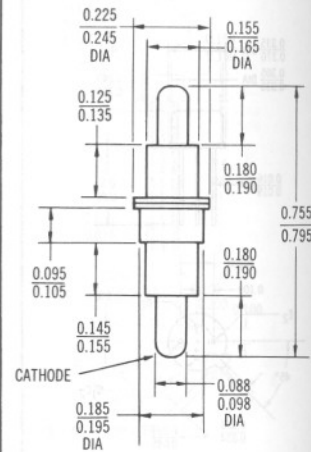
CASE 45A



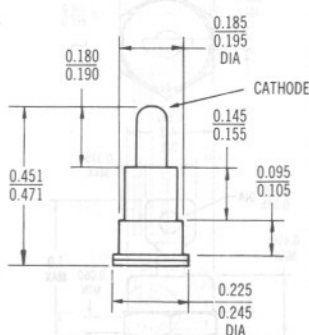
CASE 46



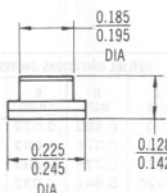
CASE 47



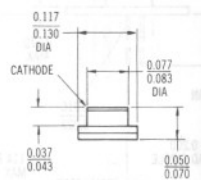
CASE 47A



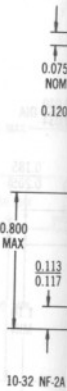
CASE 47B



CASE 48



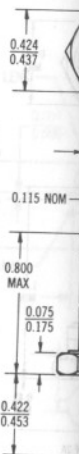
CASE 49



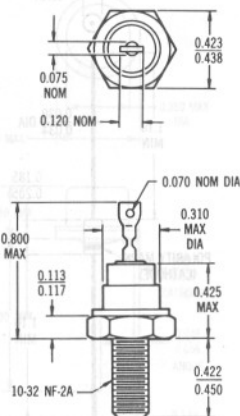
CASE 53



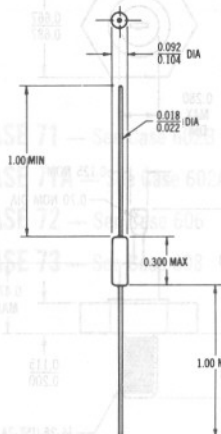
CASE 56 DO



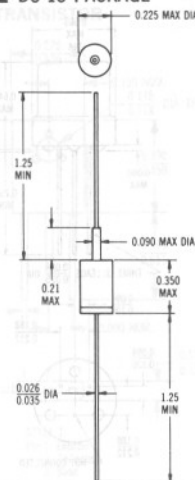
CASE 49



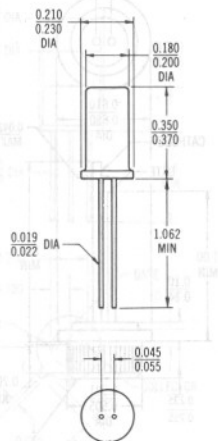
CASE 51 DO-7 PACKAGE



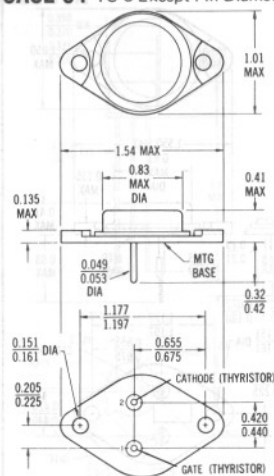
CASE 52 DO-13 PACKAGE



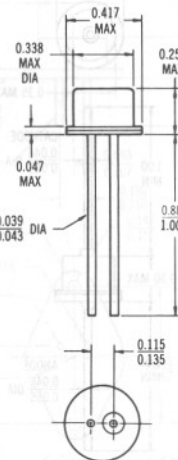
CASE 53



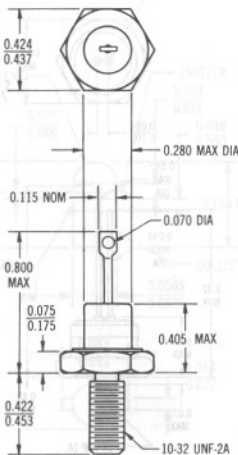
CASE 54 TO-3 Except Pin Diameter



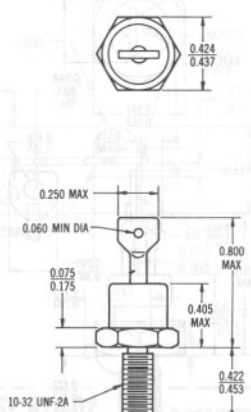
CASE 55



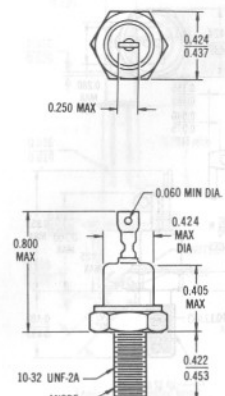
CASE 56 DO-4 PACKAGE



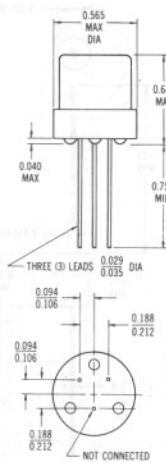
CASE 56A DO-4 PACKAGE



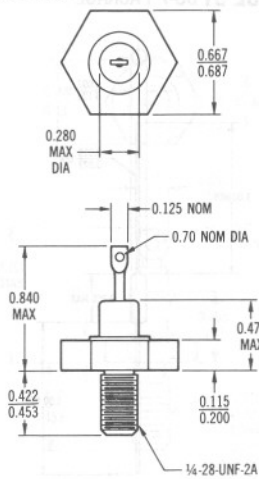
CASE 56B



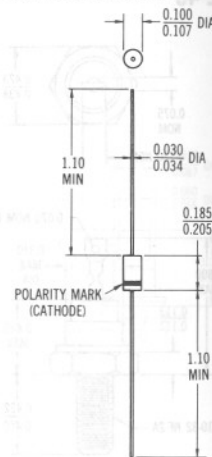
CASE 57



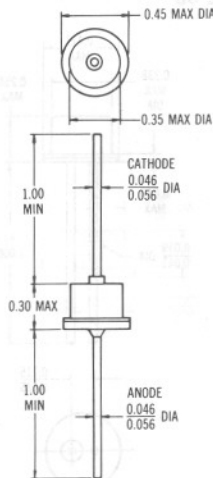
CASE 58



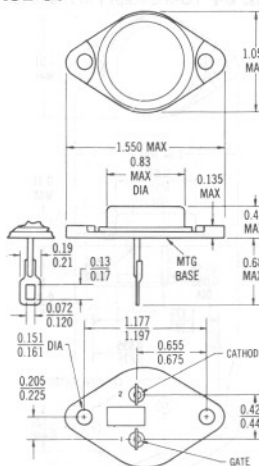
CASE 59 DO-41 PACKAGE



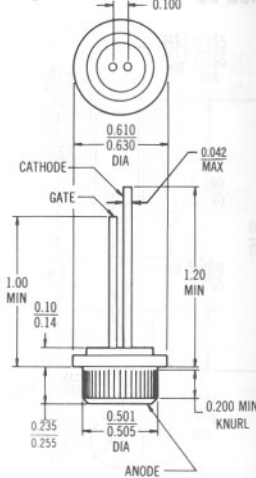
CASE 60



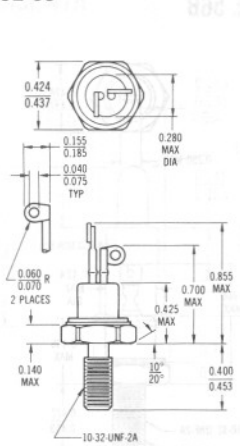
CASE 61 TO-41 PACKAGE



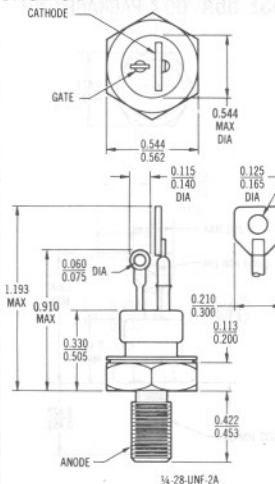
CASE 62



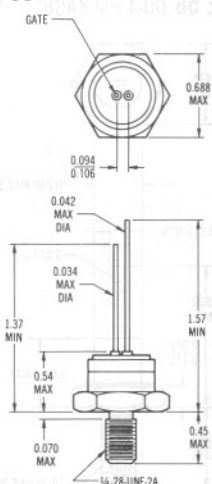
CASE 63



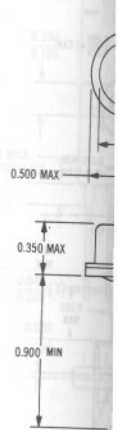
CASE 64 TO-48 PACKAGE



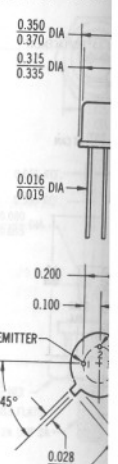
CASE 68



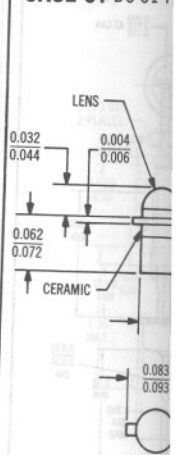
CASE 70



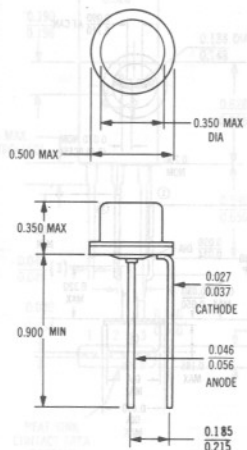
CASE 79 TO-39



CASE 81 DO-31 P



CASE 70



CASE 71 — See Case 602B

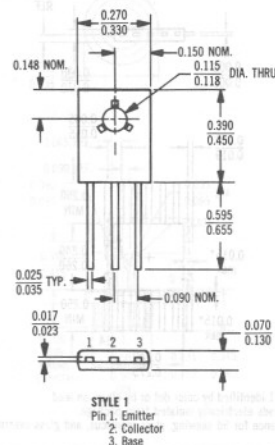
CASE 71A — See Case 602A

CASE 72 — See Case 606

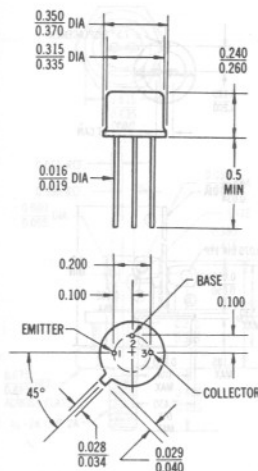
CASE 73 — See Case 608

CASE 77

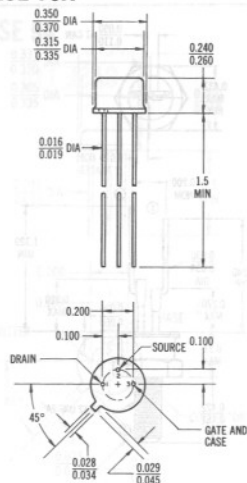
PLASTIC TRANSISTOR



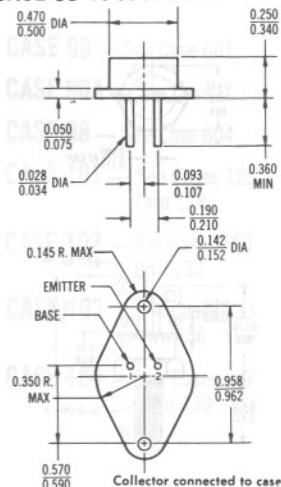
CASE 79 TO-39 PACKAGE



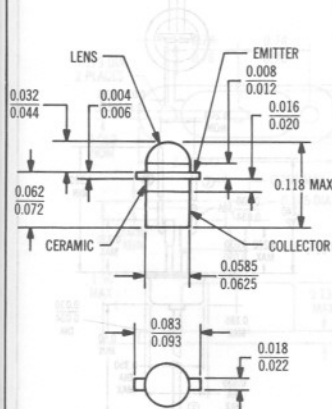
CASE 79A



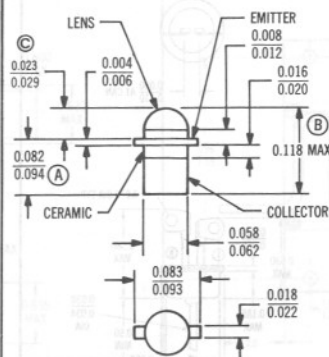
CASE 80 TO-66 PACKAGE



CASE 81 DO-31 PACKAGE



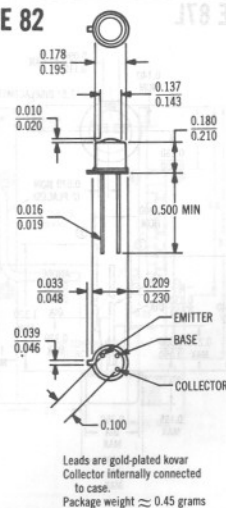
CASE 81A-01



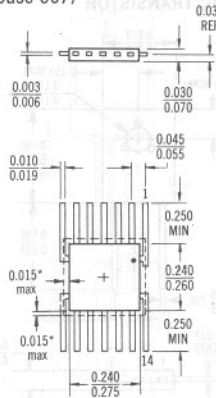
CASE 81A-02

A = 0.062/0.072
B = 0.105 MAX
C = 0.029 MAX

CASE 82



CASE 83 TO-86 PACKAGE (Also Case 607)

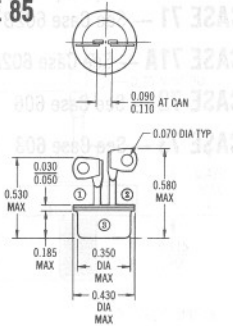


Lead 1 identified by color dot or by elbow on lead.
All leads electrically isolated from package.
*Tolerance for lid skewing, glass meniscus, and glass overrun.

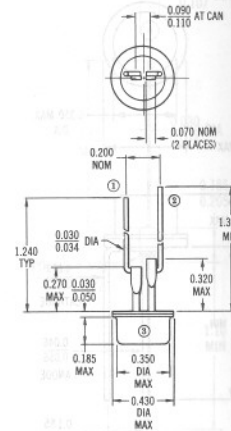
CASE 85, L thru 88, L STYLES

LEAD	STYLE 1 (Thyristors)	STYLE 2 (Triacs)
①	Gate	Gate
②	Cathode	Anode 1
③	Anode	Anode 2

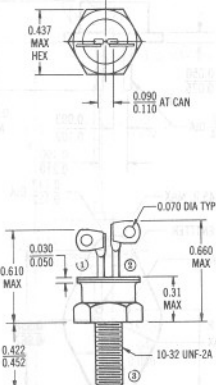
CASE 85



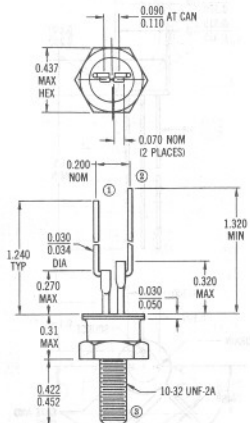
CASE 85L



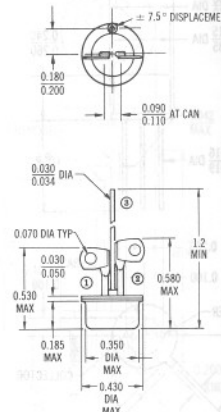
CASE 86



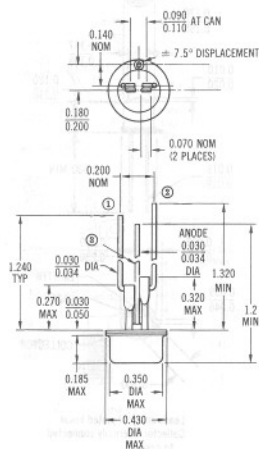
CASE 86L



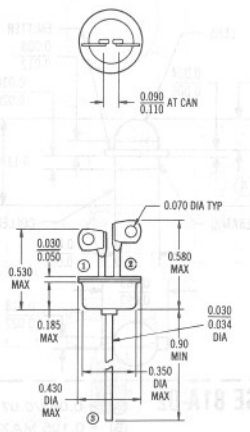
CASE 87



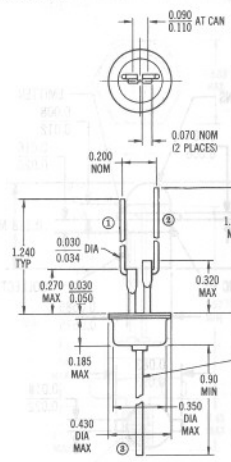
CASE 87L



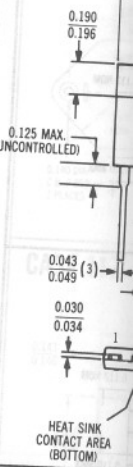
CASE 88



CASE 88L



CASE 90



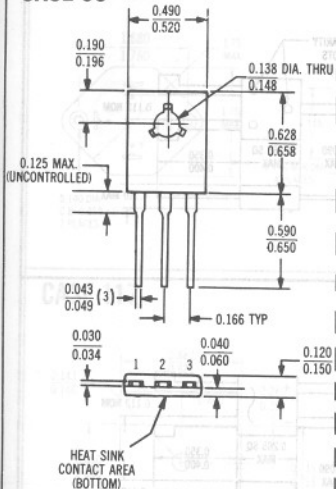
CASE 92



CASE 100



CASE 90



CASE 90 STYLES

STYLE 1



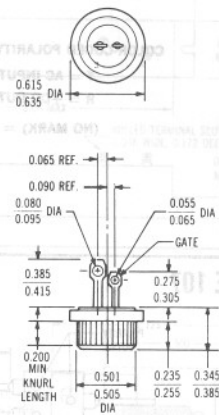
Pin 1. Cathode
2. Anode
3. Gate

STYLE 2

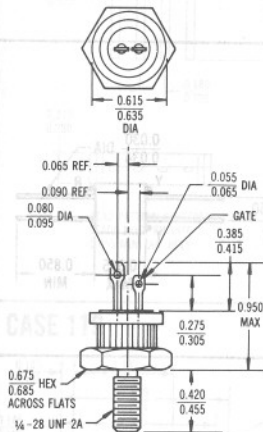


Pin 1. Emitter
2. Collector
3. Base

CASE 91

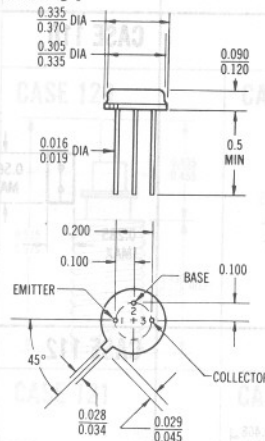


CASE 92



CASE 93 — See Case 605

CASE 94



CASE 96 — See Case 601

CASE 96A — See Case 603

CASE 98 — See Case 604

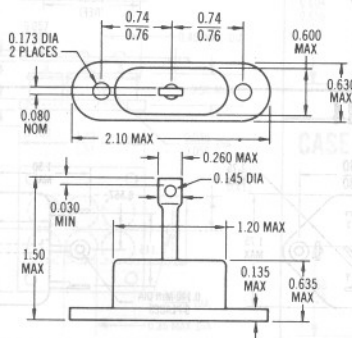
CASE 101 — See Cases 125 thru 128

CASE 102 — See Cases 129 thru 132

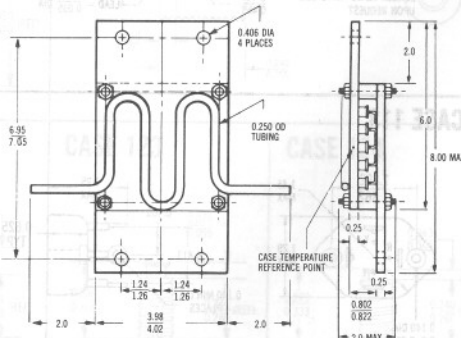
CASE 103 — See Cases 133 thru 136

CASE 104 — See Cases 137 thru 139

CASE 100

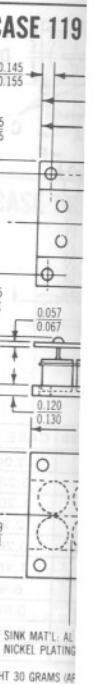
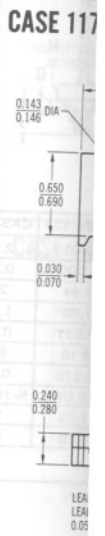
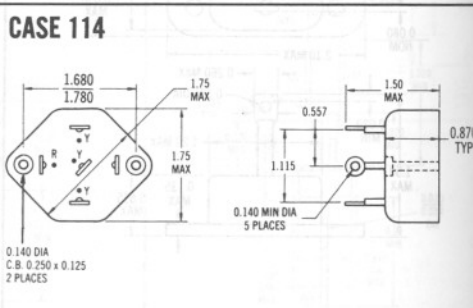
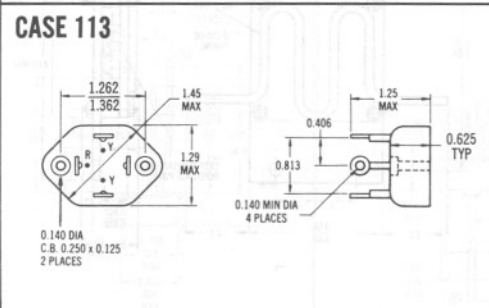
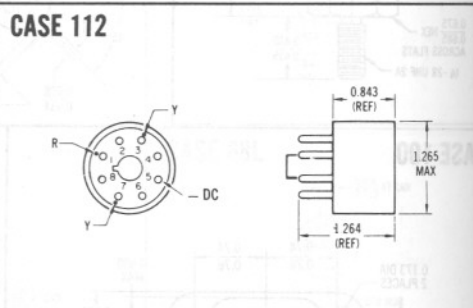
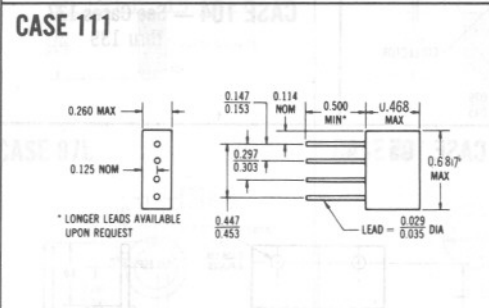
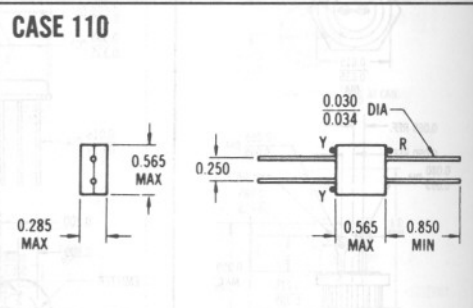
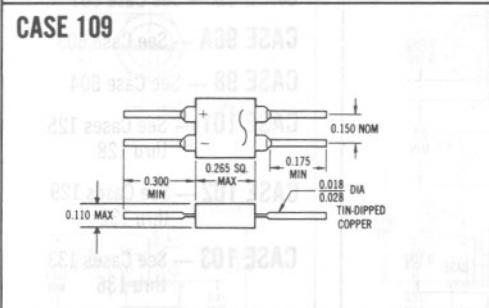
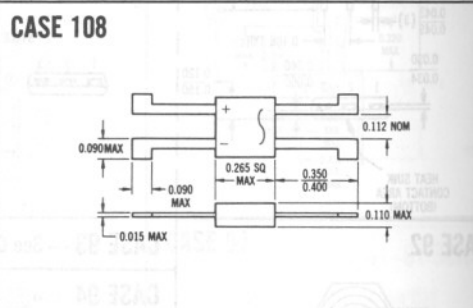
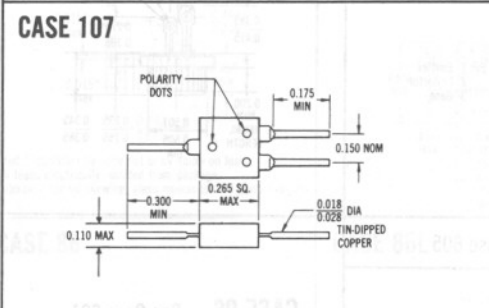
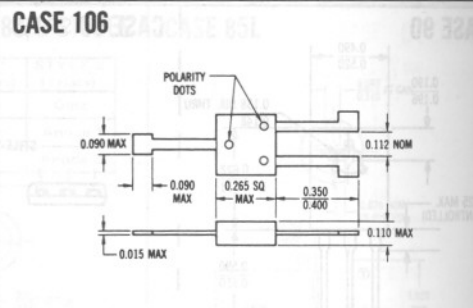


CASE 105

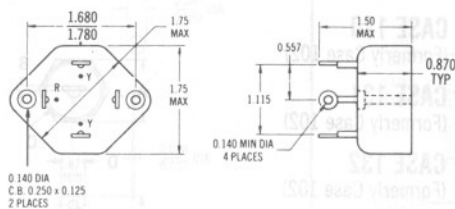


CASE 83 TO-86 PACKAGE 18 32A3 CASE 85, L 110V

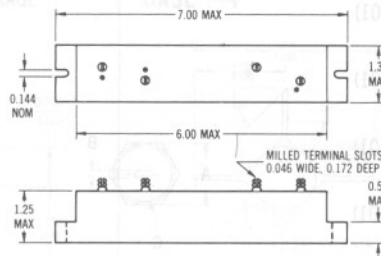
COLOR-CODED POLARITY DOTS:
 Y = AC INPUT
 R = +DC OUTPUT
 (NO MARK) = -DC OUTPUT



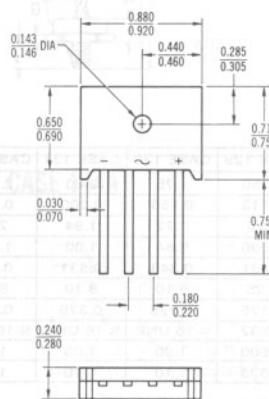
CASE 115



CASE 116

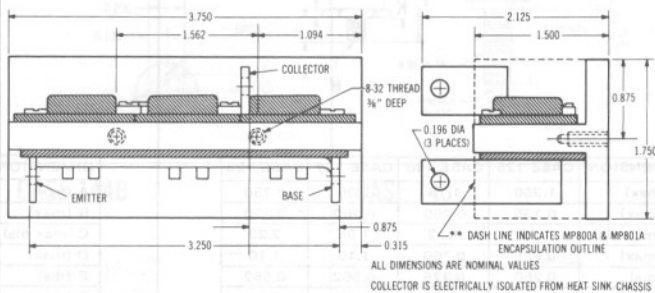


CASE 117

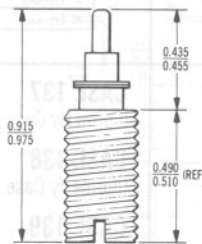


LEAD PATTERN CENTERED
LEADS MUST FIT INTO
0.055 MIN. DIA. HOLE

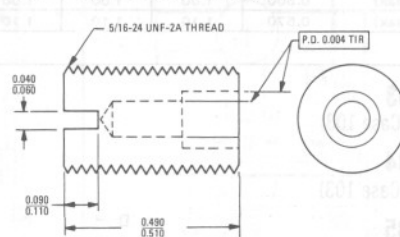
CASE 118



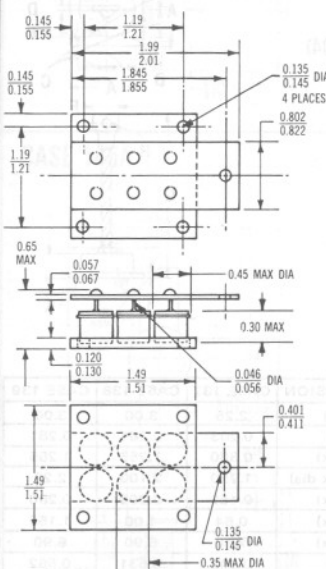
CASE 120



CASE 120, 121 ADAPTER DETAIL



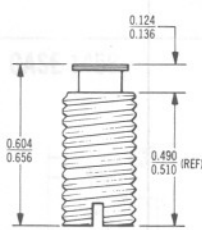
CASE 119



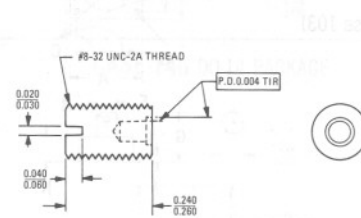
HEAT SINK MAT'L: AL ALLOY 3003
WITH NICKEL PLATING

WEIGHT 30 GRAMS (APPROX)

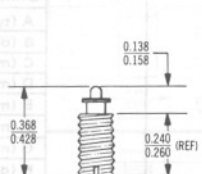
CASE 121



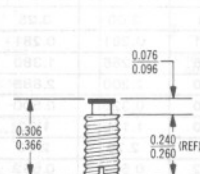
CASE 122, 123, 124 ADAPTER DETAIL



CASE 122



CASE 123



CASE 124

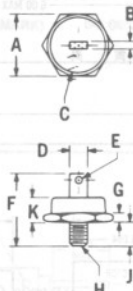


CASE 125
(Formerly Case 101)

CASE 126
(Formerly Case 101)

CASE 127
(Formerly Case 101)

CASE 128
(Formerly Case 101)



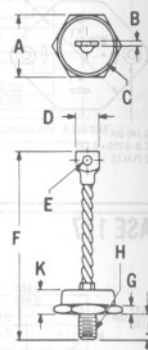
DIMENSION	CASE 125	CASE 126	CASE 127	CASE 128
A (hex)	1.250	1.75	2.00	2.250
B (max)	0.135	0.260	0.260	0.320
C (max dia)	1.20	1.72	1.94	2.20
D (max)	0.525	0.760	1.10	1.10
E (dia)	0.250	0.375	0.562	0.562
F (max)	2.25	3.0	3.50	3.72
G (typ)	0.125	0.375	0.375	0.375
H (thread)	10-32	3/16 UNF	3/16 UNF	3/16 UNF
J (max)	0.500	1.00	1.00	1.00
K (max)	0.570	1.10	1.10	1.10

CASE 129
(Formerly Case 102)

CASE 130
(Formerly Case 102)

CASE 131
(Formerly Case 102)

CASE 132
(Formerly Case 102)



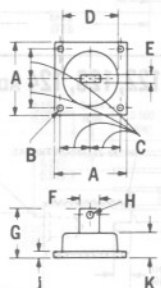
DIMENSION	CASE 129	CASE 130	CASE 131	CASE 132
A (hex)	1.250	1.75	2.00	2.250
B (max)	0.113	0.155	0.200	0.260
C (max dia)	1.20	1.72	1.94	2.20
D (max)	0.590	0.64	1.00	1.155
E (dia)	0.281	0.343	0.531	0.562
F (max)	6.25	8.10	8.10	8.10
G (typ)	0.125	0.375	0.375	0.375
H (thread)	10-32	3/16 UNF	3/16 UNF	3/16 UNF
J (max)	0.500	1.00	1.00	1.00
K (max)	0.570	1.10	1.10	1.10

CASE 133
(Formerly Case 103)

CASE 134
(Formerly Case 103)

CASE 135
(Formerly Case 103)

CASE 136
(Formerly Case 103)

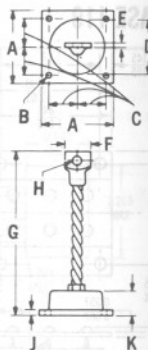


DIMENSION	CASE 133	CASE 134	CASE 135	CASE 136
A (typ)	2.25	3.00	3.00	3.25
B (dia)	0.203	0.281	0.281	0.281
C (max)	0.880	1.255	1.255	1.380
D (max dia)	1.720	2.100	2.200	2.885
E (max)	0.260	0.260	0.320	0.500
F (max)	0.760	1.100	1.100	1.30
G (max)	1.9	2.50	2.70	2.50
H (dia)	0.375	0.562	0.562	0.562
J (max)	0.260	0.260	0.260	0.260
K (max)	1.00	1.00	1.00	1.00

CASE 137
(Formerly Case 104)

CASE 138
(Formerly Case 104)

CASE 139
(Formerly Case 104)

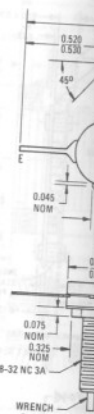


DIMENSION	CASE 137	CASE 138	CASE 139
A (typ)	2.25	3.00	3.00
B (dia)	0.203	0.281	0.281
C (max)	0.880	1.255	1.255
D (max dia)	1.720	2.100	2.20
E (max)	0.155	0.200	0.260
F (max)	0.64	1.00	1.155
G (max)	7.10	6.90	6.90
H (dia)	0.343	0.531	0.562
J (max)	0.260	0.260	0.260
K (max)	1.00	1.00	1.00

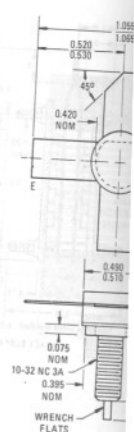
CASE 142

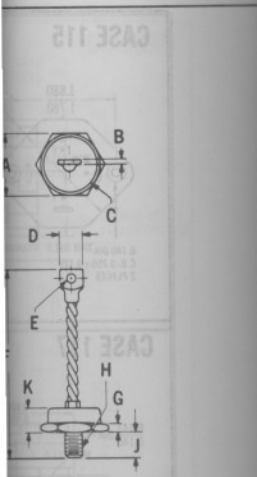
POLARITY MARK
(CATHODE)

CASE 144A

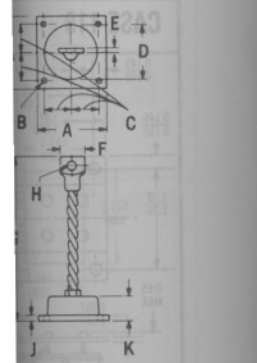


CASE 145A



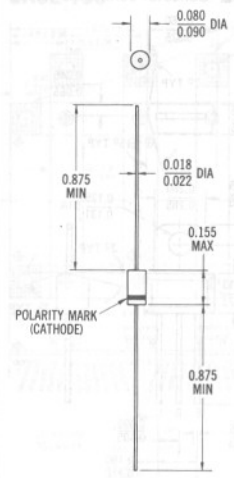


CASE 131	CASE 132
2.00	2.250
0.200	0.260
1.94	2.20
1.00	1.155
0.531	0.562
8.10	8.10
0.375	0.375
1/16 UNF	1/16 UNF
1.00	1.00
1.10	1.10

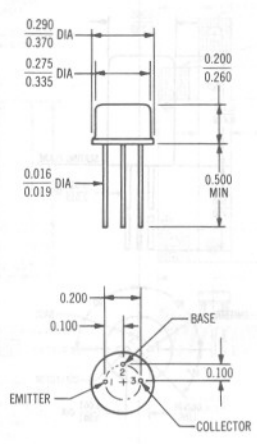


CASE 138	CASE 139
3.00	3.00
0.281	0.281
1.255	1.255
2.100	2.20
0.200	0.260
1.00	1.155
6.90	6.90
0.531	0.562
0.260	0.260
1.00	1.00

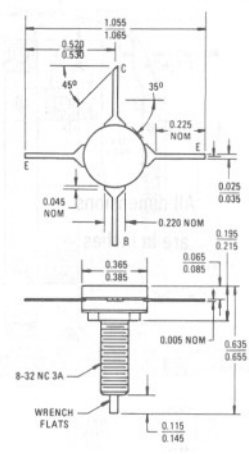
CASE 142



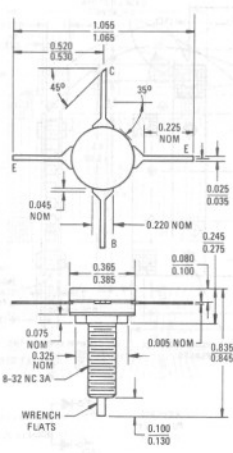
CASE 143 TO-9 PACKAGE



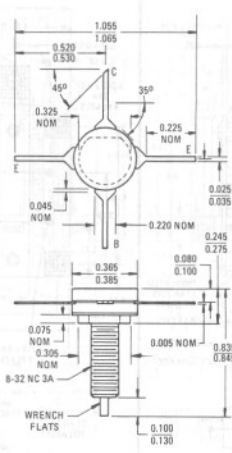
CASE 144



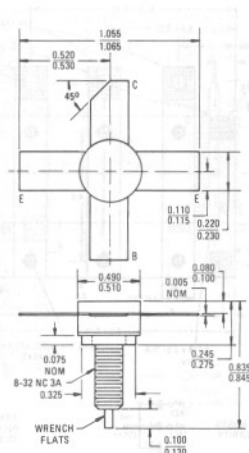
CASE 144A



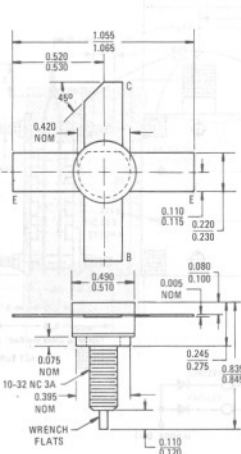
CASE 144B



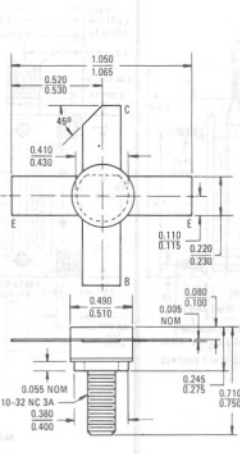
CASE 145



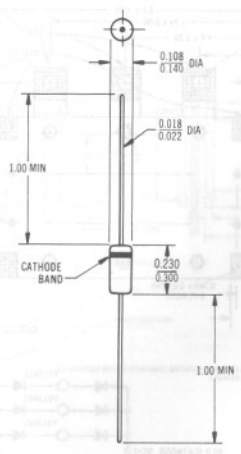
CASE 145A

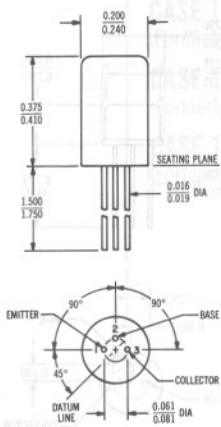


CASE 145B

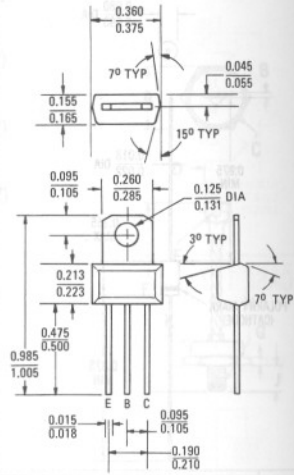


CASE 146 DO-14 PACKAGE



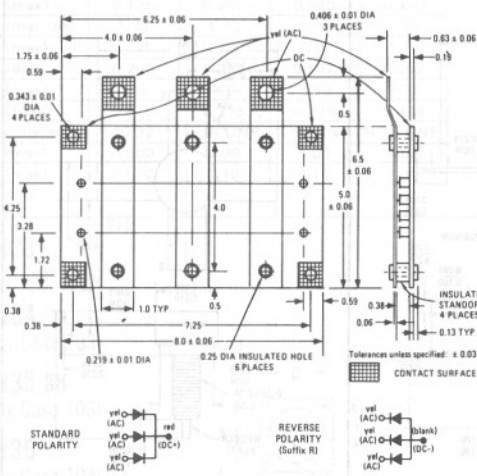
CASE 149 TO-1 PACKAGE

CASE 152 Collector connected to tab

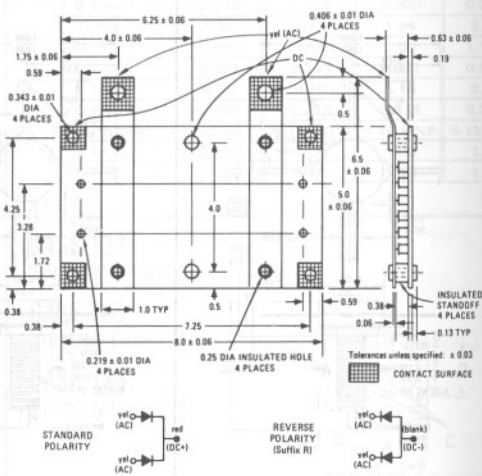


All dimensions
are in inches

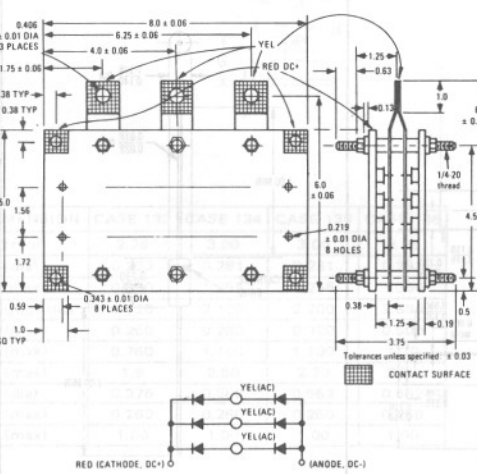
CASE 154



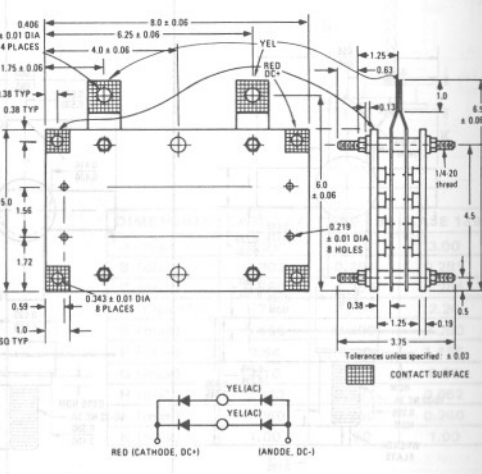
CASE 154A



CASE 155



CASE 155A



Technical drawing of a contact surface showing dimensions and tolerances. The drawing includes a cross-section view of a contact surface with various dimensions and tolerances. Key dimensions include: 1.25, 0.83, 0.13, 1.4.20 thread, 1.25, 0.13, 3.75, and 0.5. The drawing also includes a note: "tolerance unless specified: 0.5". The contact surface is labeled "CONTACT SURFACE".

STANDARD POLARITY

(AC) yel red
(AC) yel (DC+)
(AC) yel

REVERSE POLARITY (Suffix R)

(AC) yel blank
(AC) yel (DC-)
(AC) yel

STANDARD POLARITY

(AC) yel red
(AC) yel (DC+)

REVERSE POLARITY (Suffix R)

(AC) yel blank
(AC) yel (DC-)

Tolerances unless specified: ± 0.03

CONTACT SURFACE

RED
(CATHODE, DC+)

Tolerances unless specified: ± 0.03

 CONTACT SURFACE



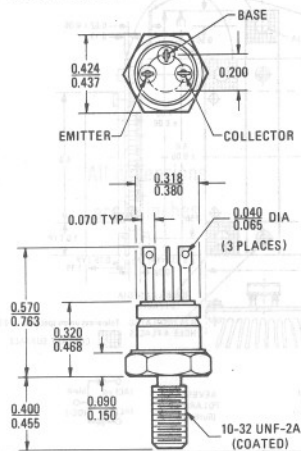
RED (CATHODE, DC+)

(ANODE, DC-)

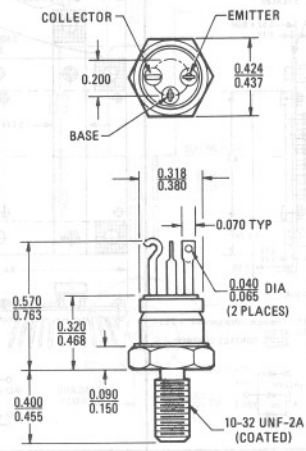
DO NOT WRITE IN THESE SPACES

CASE 160 TO-59 PACKAGE

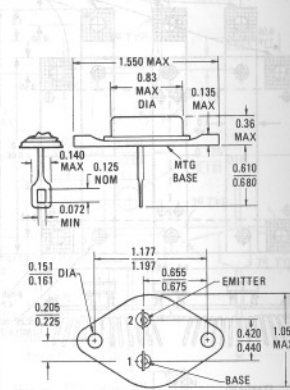
All leads isolated from case

**CASE 160A TO-59 PACKAGE**

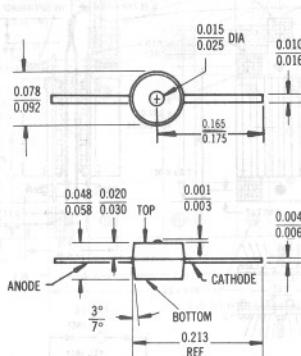
Collector connected to case

**CASE 161 TO-41 PACKAGE**

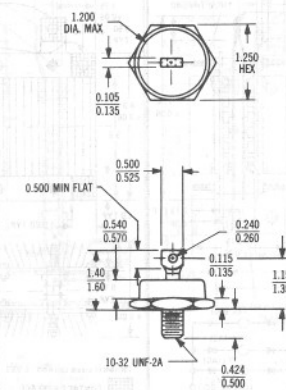
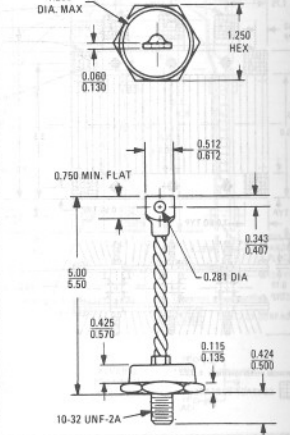
Collector connected to case

**CASE 166**

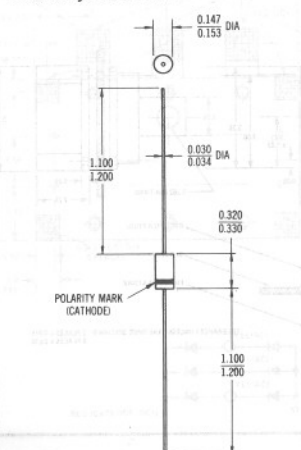
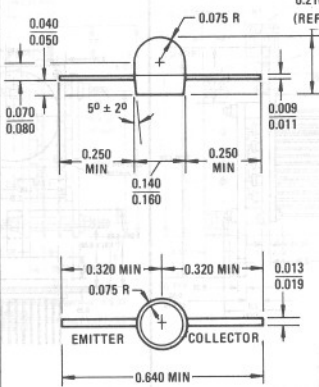
(Formerly Case 28A)



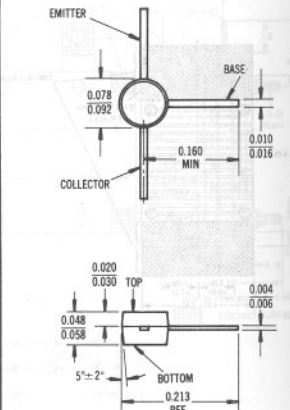
Cathode identified by color dot on top of package.

CASE 167 TENTATIVE**CASE 168****CASE 169**

(Formerly Case 59A)

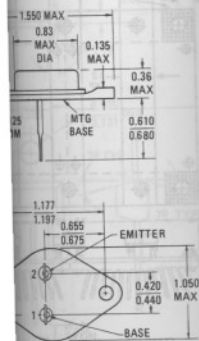
**CASE 171**

Collector indicated by arrow on bottom of device.

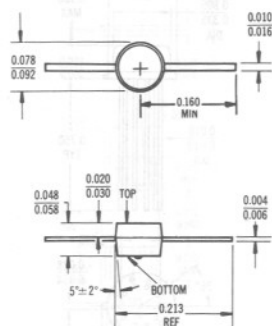
CASE 172

TO-41 PACKAGE

ected to case

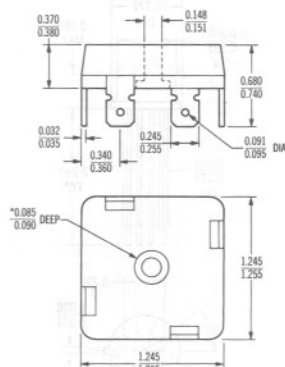


CASE 173



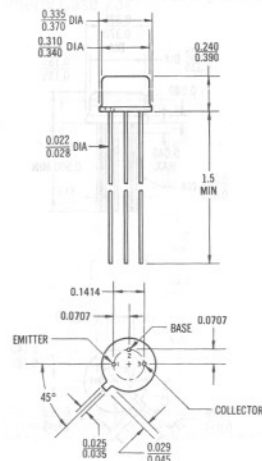
Collector indicated by arrow on bottom of device.

CASE 179 TENTATIVE

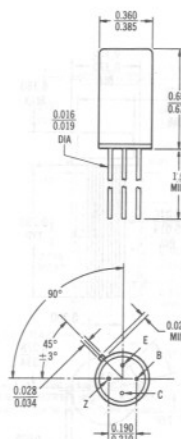


*Hole and countersink for #6 socket-head screw.

CASE 180

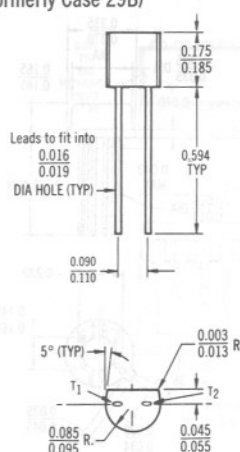


CASE 181

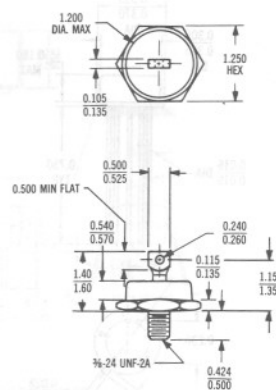


CASE 182

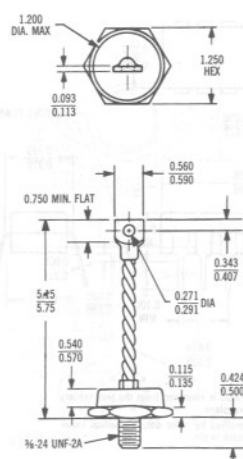
(Formerly Case 29B)



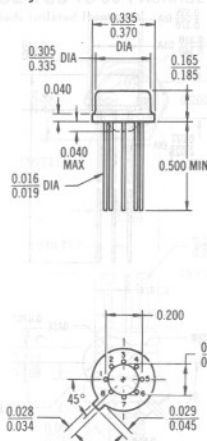
CASE 189 TENTATIVE



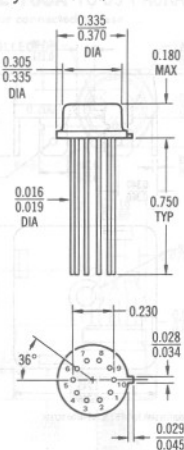
CASE 190 TENTATIVE



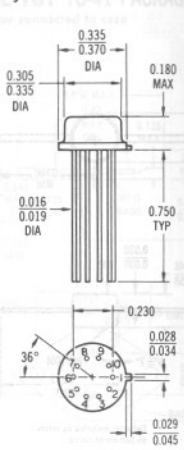
CASE 601 TO-99 PACKAGE
(Formerly Case 96)



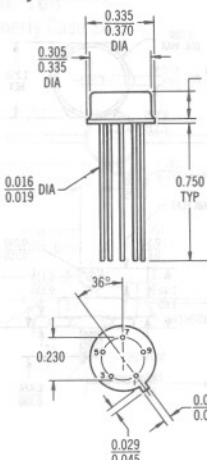
CASE 602A
(Formerly Case 71A)



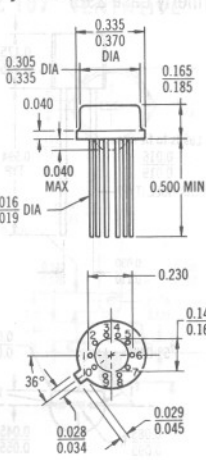
CASE 602B
(Formerly Case 71)



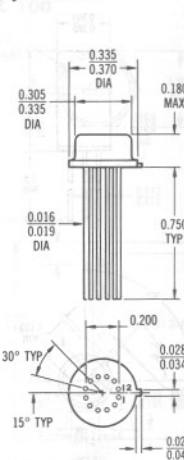
CASE 602C
(Formerly Case 89)



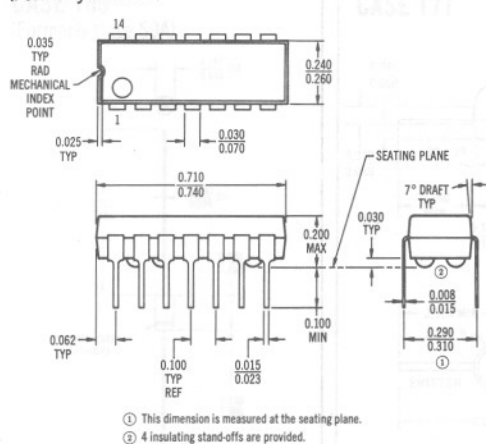
CASE 603 TO-100 PACKAGE
(Formerly Case 96A)



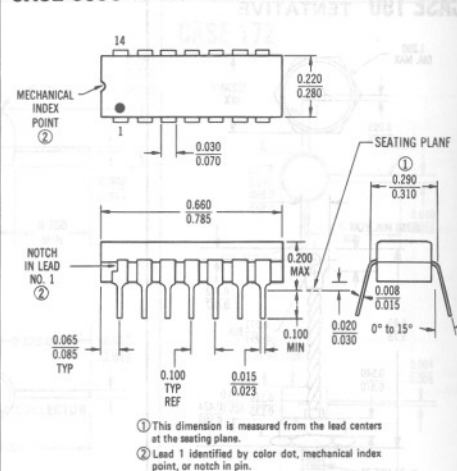
CASE 604
(Formerly Case 98)



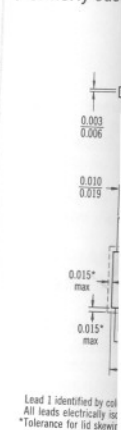
CASE 605 TO-116 PACKAGE (Plastic)
(Formerly Case 93)



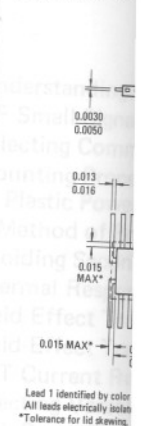
CASE 605C TO-116 PACKAGE (Ceramic)



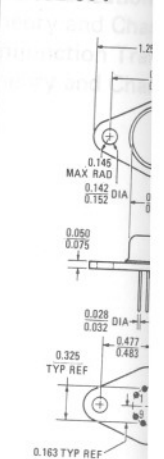
CASE 606 T
(Formerly Case 71)



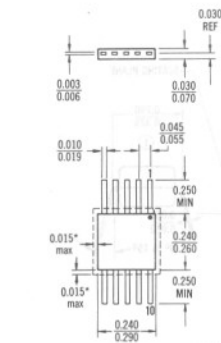
CASE 609 TO-



CASE 614

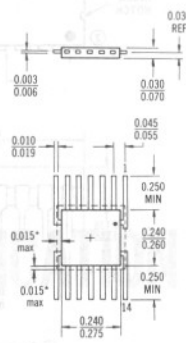


CASE 606 TO-91 PACKAGE
(Formerly Case 72)



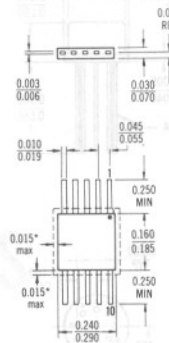
Lead 1 identified by color dot or by shoulder on lead.
All leads electrically isolated from package.
*Tolerance for lid skewing, glass meniscus, and glass overrun.

CASE 607 TO-86 PACKAGE
(Formerly Case 83)



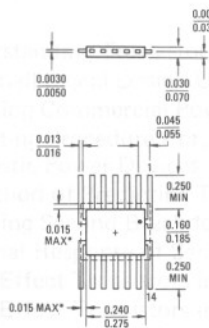
Lead 1 identified by color dot or by elbow on lead.
All leads electrically isolated from package.
*Tolerance for lid skewing, glass meniscus, and glass overrun.

CASE 608 TO-90 PACKAGE
(Formerly Case 73)



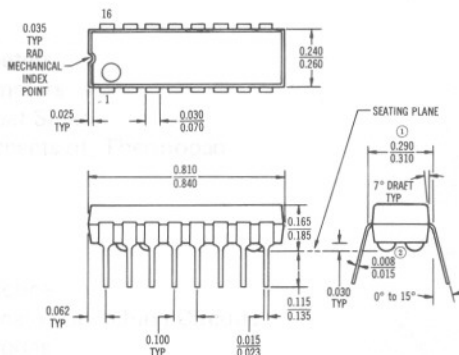
Lead 1 identified by color dot or by shoulder on lead.
All leads electrically isolated from package.
*Tolerance for lid skewing, glass meniscus, and glass overrun.

CASE 609 TO-85 PACKAGE



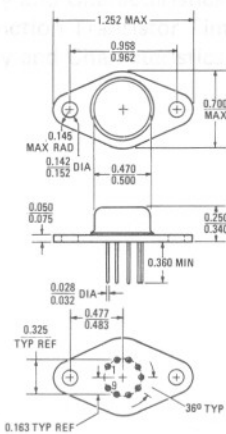
Lead 1 identified by color dot or by elbow on lead.
All leads electrically isolated from package.
*Tolerance for lid skewing, glass meniscus, and glass overrun.

CASE 612 (Plastic)

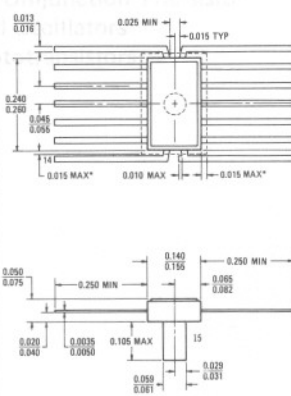


① This dimension is measured at the seating plane.
② 4 insulating stand-offs are provided.

CASE 614

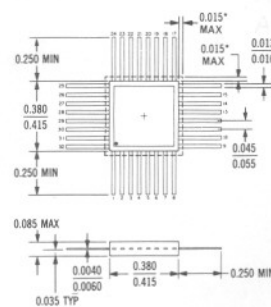


CASE 617



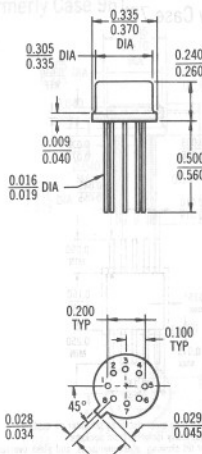
Lead 1 identified by a tab on that lead.
*Tolerance for lid skewing, glass meniscus, and glass overrun.

CASE 618

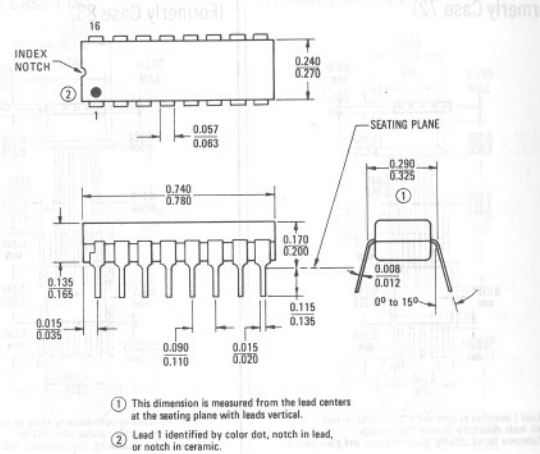


Lead 1 identified by color dot.
All leads electrically isolated from package.
*Tolerance for lid skewing, glass meniscus, and glass overrun.

CASE 619



CASE 620 (Ceramic)



The range of frequency parameters. Manufacturers one or two of these parameters arise. these parameters in questions from the data.

PARAMETER CHARACTER INTERRELATIONSHIPS

One parameter is by circuit forward current. by remains approximately 1-kill). After the upper decrease rapidly.

The frequency at which curv provides a lower frequency performance of

Understanding Tra
RF Small-Signal D
Selecting Commer
Mounting Procedur
Plastic Power D
A Method of Predic
Avoiding Second B
Thermal Response
Field-Effect Transi
Field-Effect Transi
FET Current Regul
Selecting Varactor
High-Power Varact
Epicap VVC Tuning
SCR Power Control
Characterization of
Theory and Charact
Unijunction Transis
Theory and Charact