

GERMANIUM NPN TRANSISTORS

Type	V_{CBO} V Max	V_{EBO} V Max	V_{CE} V Max		I_{CBO} @ V_{CB} V μA Max	h_{FE} Typical	@ I_C mA	Cob pf Max	fab MHZ Min	Pack Outline	Power Dissipation @25°C MW
NPN											
2N356A	30	20	20		30	5	20	100		TO-5	150
2N357	20	20	15		20	5	45	1.0		TO-5	100
2N357A	30	20	20		30	5	25	200	14'	TO-5	150
2N358	20	20	12		20	5	60	1.0		TO-5	100
2N358A	30	20	15		30	5	25	300	14'	TO-5	150
2N358A	30	20	15		30	25	25	300		TO-5	150
2N366	30	2	2		30	10	65	1.0	4.5	OV9	150
2N377	25	15	20		25	10	40	30	6.0	TO-5	150
2N377A	40	15			40	20	20	30	6.0	TO-5	150
2N385	25	15	25		25	10	60	30	6.0	TO-5	150
2N385A	40	15	15		40	40	70	30	8.0	TO-5	150
2N388	20	15	20		20	10	150	30	15	TO-5	150
2N388	25	15	20		25	10	60	30	5.0	TO-5	150
2N388A	40	15			40	10	60	30	8.0	TO-5	150
2N438	30	25	25		30	10	25	1.0	9'	TO-5	100
2N438A	30	25	25		30	10	25	1.0	9'	TO-5	150
2N439	30	25	20		30	10	35	1.0	9'	TO-5	100
2N439A	30	25	20		30	10	35	1.0	9'	TO-5	150
2N440	30	25	15		30	10	65	1.0	9'	TO-5	100
2N440A	30	25	15		30	10	65	1.0	9'	TO-5	150
2N444	15		15		15	2	15	1.0	13'	TO-5	100
2N444A	40	10	25		40	5	15	1.0	0.5	TO-5	150
2N445	15		12		15	2	35	1.0	13'	TO-5	100
2N446	30	10	18		30	4	35	1.0	2.0	TO-5	150
2N446A	30	10	15		30	4	60	1.0	5.0	TO-5	150
2N447A	30	10	12		30	4	85	1.0		TO-5	150
2N587	40	40	20		40	50	20	200	30	TO-5	150
2N634	20	15	15		20	5	15	200		TO-5	150
2N534A	25	25	20		25	6	55	10	12'	TO-5	150
2N635	20	15	15		20	5	25	200	12.0	TO-5	150
2N635A	25	25	20		25	6	100	10	12'	TO-5	150
2N636	20	15	15		20	5	35	200	17.0	TO-5	150
2N636A	25	25	15		25	6	190	10	12'	TO-5	150
2N1302	25	25	25		25	6	20	10	20	TO-5	150
2N1302	25	25	25		25	6	20	10	20	TO-5	150
2N1304	25	25	20		25	6	40-200	10	20	TO-5	150
2N1304	25	25	20		25	6	40-200	10	20	TO-5	150
2N1306	25	25	15		25	6	60-300	10	20	TO-5	150
2N1306	25	25	15		25	6	60-300	10	20	TO-5	150
2N1308	25	25	15		25	6	80	10	20	TO-5	150
2N1308	25	25	15		25	6	80-400	10	20	TO-5	150
2N1605	25	12	2Y		25	5	125	20	20	TO-5	150
2N1605A	40	12			40	10	60	20	20	TO-5	200
2N1730	25	20	15		25	6	30	100	20	TO-5	150
2N1732	30	25	30		30	6	40	10	20	TO-5	150
2N1808	25	20	25		25	5	125	20	13'	TO-5	150
2N1892	30	25	15		30	6	30	2	20	TO-5	150
2N1993	30	30	15		30	10	50	10	20	TO-5	150
2N2430	32	10	32		32	10	105	50	90	TO-1	280

Type	V_{CBO} V Max	V_{EBO} V Max	V_{CE} V Max		I_{CBO} @ V_{CB} V μA Max	h_{FE} Min Max	@ I_C mA	Cob pf Max	fab MHZ Min	Pack Outline	Power Dissipation @25°C MW
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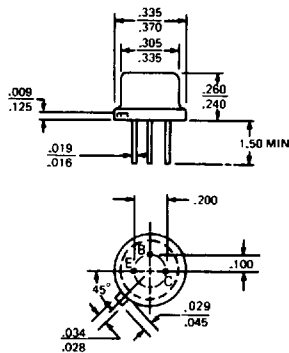
GERMANIUM PNP MESA TRANSISTORS

2N705	15	3.5			5	3.0	25-	10		300	TO-18 ^{1,2}	300
2N705A	15	3.5			5	3.0	25-	10			TO-18 ¹	150
2N710	15	1.0			1	3.0	25-	10		300	TO-18 ¹	300
2N711	12	1.0	12		5	3.0	20-	10	7.5	150	TO-18 ¹	150
2N711A	15	1.5	7		5	1.5	25-	10	6.0	150	TO-18 ¹	150
2N711B	18	2.0	7		10	1.5	30-	10	6.0	150	TO-18 ¹	150
2N827	20	4.0			15	5.0	100-	10	9.0		TO-18 ¹	150
2N828	18	2.5			6	3.0	25-	10		300	TO-18 ¹	300

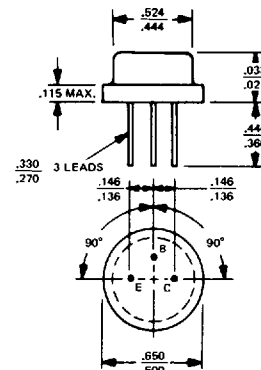
GERMANIUM POWER TRANSISTORS

CASE OUTLINE DRAWINGS & DIMENSIONS

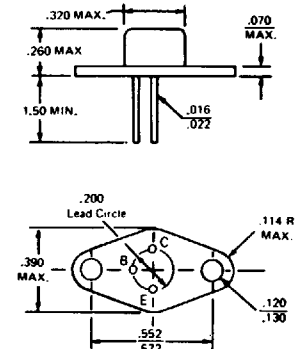
TO-5



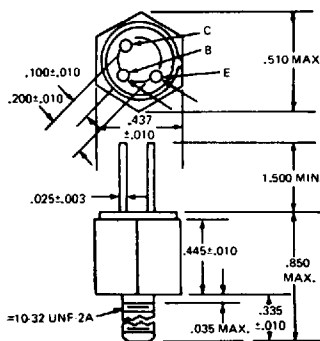
TO-8



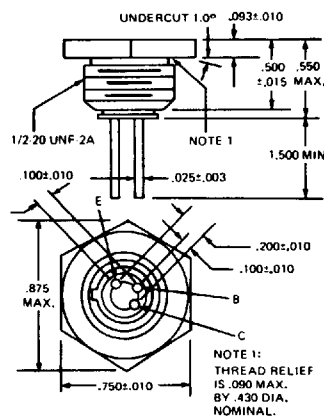
TO-37



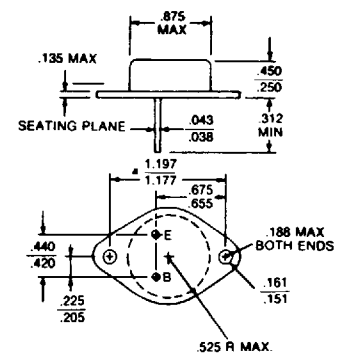
MT-27



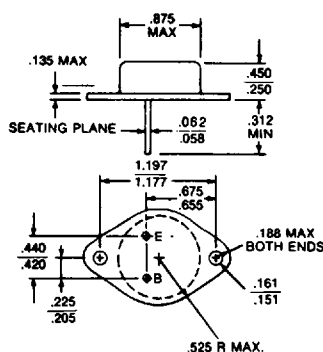
MT-28



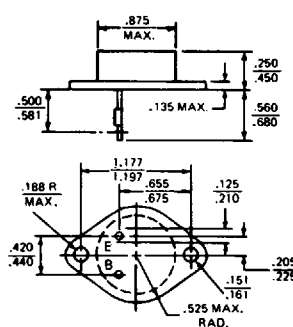
TO-3



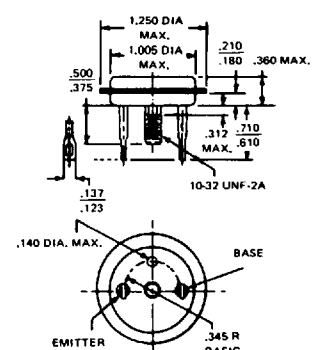
MODIFIED TO-3
(60 mil pins)



TO-41



TO-36



CASE OUTLINE DRAWINGS & DIMENSIONS

Technical drawing of a 28-pin DIP package. The top view shows a circular package with a diameter of 550 (530) and four mounting holes labeled A, B, C, and D. The side view shows a package with a maximum height of 970 (930), a body diameter of 430 (415), and a mounting hole diameter of 550 (530). The package is labeled with '1', '28 UNF-28', '250 WIP', and 'FULL THREAD'. The mounting holes are labeled 'SOLDER LUGS'.

Technical drawing of a mechanical part, likely a valve or actuator component, showing top and side views with dimensions.

Top View Dimensions:

- Overall width: 620 MAX.
- Top flange width: 470.
- Top flange thickness: .500.
- Top flange outer radius: .050 MAX.
- Top flange inner radius: .028.
- Top flange inner width: .034.
- Top flange inner length: .958.
- Top flange inner width (inner): .570.
- Top flange inner width (outer): .590.
- Top flange inner length (outer): .962.
- Top flange inner width (outer): .145 R MAX.
- Top flange inner width (outer): .142.
- Top flange inner width (outer): .152.
- Top flange inner width (outer): .350 R MAX.
- Top flange inner width (outer): .190.
- Top flange inner width (outer): .210.
- Top flange inner width (outer): .093.
- Top flange inner width (outer): .107.

Side View Dimensions:

- Overall height: 250.
- Top flange height: .340.
- Top flange thickness: .050 MAX.
- Top flange inner thickness: .075.
- Top flange inner thickness: .028.
- Top flange inner thickness: .034.
- Top flange inner thickness: .958.
- Top flange inner thickness: .570.
- Top flange inner thickness: .590.
- Top flange inner thickness: .962.
- Top flange inner thickness: .145 R MAX.
- Top flange inner thickness: .142.
- Top flange inner thickness: .152.
- Top flange inner thickness: .350 R MAX.
- Top flange inner thickness: .190.
- Top flange inner thickness: .210.
- Top flange inner thickness: .093.
- Top flange inner thickness: .107.

Notes:

- Top flange inner thickness: .360 MIN.
- Top flange inner thickness: .145 R MAX.
- Top flange inner thickness: .142.
- Top flange inner thickness: .152.
- Top flange inner thickness: .350 R MAX.
- Top flange inner thickness: .190.
- Top flange inner thickness: .210.
- Top flange inner thickness: .093.
- Top flange inner thickness: .107.

[illegible]

The drawing shows a 2N4350 JFET with the following dimensions:

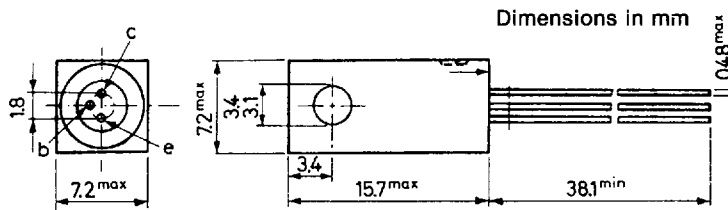
- Side View Dimensions:**
 - Gate lead thread: 3/8-24UNF-2A
 - Gate lead diameter: .093
 - Gate lead height: .82
 - Drain lead diameter: .09 DIA. (3)
 - Drain lead height: .72
 - Source lead diameter: 1.26 DIA.
 - Source lead height: .53
- Top View Dimensions:**
 - Emitter diameter: .02
 - Collector diameter: .29
 - Base diameter: .58

Technical drawing of a 1/2-20 x 1/2-13 UNF nut. The drawing includes a side view and an end view. The side view shows the nut's profile with dimensions: .275/.500 (top width), .100/.312 (flange width), 1.25 MAX. (height), .040/.095 (thread width), .1658/.1697 (thread pitch), .375/.500 (bottom width), and .610/.710 (total height). The end view shows the circular face with dimensions: .990 MIN. (outer diameter), .335/.395 (inner diameter), and a 90° angle. The text 'SEATING PLANE' is indicated at the top of the side view.

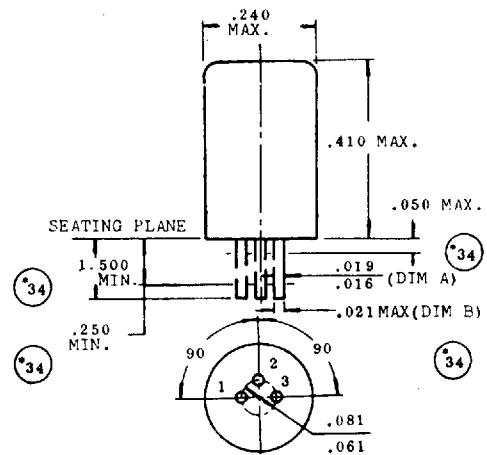
GERMANIUM POWER TRANSISTORS

CASE OUTLINE DRAWINGS & DIMENSIONS

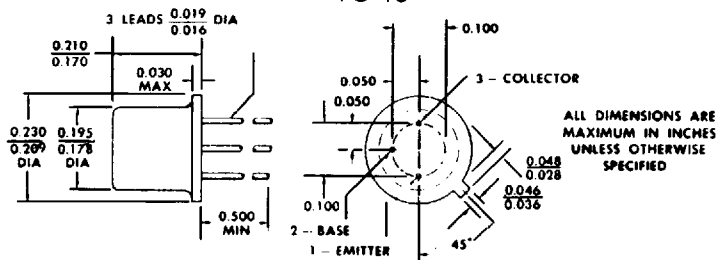
NS257



TO-1



TO-18



THE COLLECTOR IS ELECTRICAL CONTACT WITH THE CASE.

ALL JEDEC TO-18 DIMENSIONS AND NOTES ARE APPLICABLE.



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26

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