

GERMANIUM POWER TRANSISTORS

PRO ELECTRON TYPES

Type Number	V_{CBO} V max	V_{CEO} V max	V_{EBO} V max	I_C A max	CURRENT GAIN at			f_T MHz	$R_{\theta j-case}$ °C/W max	Outlines	NOTES
					h_{FE} min-max	V_{CE} V	I_C A				
AUY22	80	60	20	8	12.5-25	0.5	5	0.3	1.5	128	—II
	80	60	20	8	20-40	0.5	5	0.3	1.5	128	—III
AUY24	80	60	20	8	30-60	0.5	5	0.3	1.5	128	—IV
AUY26	65	45	20	3	30-50	0.6	1	0.35	1.5	128	
	80	60	20	3	20-35	0.6	1	0.35	1.5	128	
AUY27	80	60	20	3	30-50	0.6	1	0.35	1.5	128	
AUY28	90	65	25	6	20-33	1.5	5	0.25	1.5	127	
AUY29	50	32	10	15	20-40	0.5	5	0.3	1.5	128	—III
	50	32	10	15	30-60	0.5	5	0.3	1.5	128	—IV
	50	32	10	15	50-100	0.5	5	0.3	1.5	128	—V
AUY34	100	80	20	3	12.5-25	1	1	0.35	1.5	127	—II
	100	80	20	3	20-40	1	1	0.35	1.5	127	—III
	100	80	20	3	30-60	1	1	0.35	1.5	127	—IV
OC19	32	32	10	3	10-56	1	2		1.0	127	
OC20	100	75	40	8	20-45	1	6		1.0	127	
OC22	47	32	15	2	50 -	2	1		3.0	127	
OC23	55	40	15	2	50 -	2	1		3.0	127	
OC24	47	40	15	2	50 -	2	1		3.0	127	
OC25	40	40	10	4	12-50	1	4		2.0	127	
OC26	32	32	10	4	20-60	1	1		1.2	127	
OC28	80	60	40	10	15-30	1	6	0.2	1.5	127	
OC29	60	48	20	10	35-80	1	6	0.25	1.5	127	
OC30	16	16	10	1.4	28	1	0.8		1.0	127	
OC35	60	48	20	10	20-45	1	6	0.22	1.5	127	
OC36	80	60	40	10	20-65	1	6	0.22	1.5	127	

Outline numbers refer to Pro-Electron designs.

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Type Number	Case Type	V_{CBO} V	V_{CEO} V	V_{EBO} V	V_{CES} V	CURRENT GAIN					SATURATION VOLTAGES				θ_{J-C} °C/W
						Min.	h_{FE}	Max.	$V_{CE} @ I_C$ V	$V_{CE(s)}$ V	$V_{BE(s)}$ V	$I_C @ I_B$ A			
2 AMP GERMANIUM PNP															
2N250	TO-3	30		15.0			30		2.0	.5	.25		.5	.050	2.20
2N251	TO-3	60		15.0			30		2.0	.5	.25		.5	.050	2.20
2N296	TO-3	60		15.0	60		20		2.0	1.0	1.00		1.0	.100	3.00
2N301	TO-3	40		10.0	50		30	70	1.5	.5					1.00
2N301A	TO-3	60		10.0	50		30	70	1.5	.5					1.00
2N307A	TO-3	35		10.0			30		1.0	.5					1.50

CASE OUTLINE DRAWINGS & DIMENSIONS

[illegible]

The drawing shows a 3-lead chip carrier. The top view is a circle with a diameter of .650. It features three leads extending from the center, with a distance of .146 between the centers of any two leads. The leads have a thickness of .033 and a width of .027. The side view shows a total height of .115 MAX. and a lead height of .360. The top view also indicates a 90° angle between the leads.

Technical drawing of a mechanical part with dimensions and tolerances:

- Top view dimensions:
 - Overall width: 875 MAX
 - Top flange width: 450
 - Top flange thickness: 250
 - Bottom flange width: 312 MIN
 - Bottom flange thickness: .038
 - Seating Plane: Indicated by a horizontal line.
- Side view dimensions:
 - Overall height: 1.197
 - Top flange height: 1.177
 - Top flange width: 675
 - Top flange thickness: 655
 - Bottom flange width: 525 R MAX
 - Bottom flange thickness: .161
 - Bottom flange width: .151
 - Bottom flange thickness: .188 MAX BOTH ENDS
 - Seating Plane: Indicated by a horizontal line.
- Other dimensions:
 - Top flange width: .135 MAX
 - Top flange thickness: .440
 - Top flange width: .420
 - Top flange thickness: .225
 - Top flange width: .205

Technical drawing of a mechanical part showing two views: a top view and a side view.

Top View Dimensions:

- Overall diameter: 1.97 MAX.
- Inner hole diameter: 1.177
- Maximum diameter at both ends: 1.88 MAX BOTH ENDS
- Maximum radius: 525 R MAX.
- Minimum diameter at ends: .161 / .151
- Maximum diameter at ends: .440 / .420
- Minimum diameter at ends: .225 / .205

Side View Dimensions:

- Maximum height: .135 MAX
- Maximum diameter: .875 MAX
- Maximum thickness: .450
- Minimum thickness: .312 MIN
- Maximum diameter: .082
- Seating Plane

Technical drawing of a 2N3638 PNP silicon transistor. The drawing includes a side view and a top view. The side view shows a cylindrical package with dimensions: 1.250 DIA MAX. for the top diameter, .500 DIA MAX. for the base diameter, .180 DIA MAX. for the emitter diameter, and .360 DIA MAX. for the base diameter. The bottom view shows a circular base with a .140 DIA MAX. hole, a .345 R fillet, and a .123 DIA hole. The drawing also indicates a 10-32 UNF-2A thread and a .312 DIA MAX. dimension.

CASE OUTLINE DRAWINGS & DIMENSIONS

[illegible]

Technical drawing of a mechanical part with dimensions and tolerances. The drawing shows a cross-section of a part with a central hole and a flange. Key dimensions include: overall width 620 MAX, flange width 470, flange thickness 500, central hole diameter 250, and various tolerances such as .050 MAX, .028, .034, .360 MIN, .145 R MAX, and .350 R MAX. The drawing also includes a detail view of a corner with dimensions .190, .210, .093, .107, .050, and .075.

Technical drawing of a mechanical part with dimensions in inches. The drawing shows a side view and a top view. Key dimensions include:

- Overall width: .789
- Overall height: .402
- Mounting hole diameter: .288 MAX.
- Base thickness: .094
- Pin diameter: .042 MIN.
- Pin hole diameter: .038
- Pin hole offset: .212
- Pin hole diameter: .218
- Pin hole offset: .042
- Pin hole diameter: .038
- Pin hole offset: .157
- Pin hole diameter: .161
- Pin hole offset: .429
- Pin hole diameter: .427
- Pin hole diameter: .433
- Pin hole offset: .546
- Pin hole diameter: .552
- Pin hole offset: .692
- Pin hole diameter: .695
- Pin hole offset: .1.189
- Pin hole diameter: .1.482
- Pin hole offset: .1.472

Technical drawing showing two views of a component. The top view is a side view of a hex nut and a base assembly. The bottom view is a top-down view of the base assembly.

Top View (Side View):

- Component: HEX NUT
- Thread: 1-1/4 - 16UN - 2A
- Dimensions:
 - Top flange thickness: .25
 - Threaded section length: .09
 - Bottom flange thickness: .26
 - Overall height: .75
 - Base diameter: .53
 - Base hole diameter: .09 DIA. (3)

Bottom View (Top-Down View):

- Component: BASE
- Dimensions:
 - Overall diameter: .58
 - Central hole diameter: .02
 - Distance from center to hole center: .29
 - Overall height: 1.5
- Labels: COLLECTOR, EMITTER

The drawing includes two views of the 2N4350A transistor:

- Side View (Top):** Shows the physical dimensions of the component. The mounting tab has a thread specification of 3/8-24UNF-2A. The total height is .82 inches. The distance from the base of the mounting tab to the top of the main body is .093 inches. The main body height is .72 inches. The distance from the base of the main body to the top of the leads is .53 inches. The leads have a diameter of .09 inches (labeled as .09 DIA. (3)). The base diameter is 1.26 inches (labeled as 1.26 DIA.).
- Top View (Bottom):** Shows the circular base with three leads. The leads are labeled: BASE, COLLECTOR, and EMITTER. The distance from the center to the base lead is .02 inches. The distance from the center to the collector lead is .29 inches. The distance from the center to the emitter lead is .02 inches. The overall diameter of the base is 1.26 inches (labeled as 1.26 DIA.).

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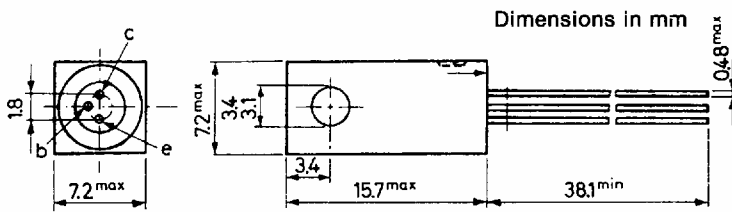
Technical drawing of a screw with the following dimensions and features:

- Top View:
 - Overall Diameter: .625
 - Head Diameter: .504
 - Head Thickness: .107
 - Head to Thread Transition: .152
 - Thread Pitch: .017
 - Thread Class: 2A
- Side View:
 - Major Diameter: .500
 - Minor Diameter: .365
 - Thread Pitch: .017
 - Thread Class: 2A
- Note: 8-32NC-2A

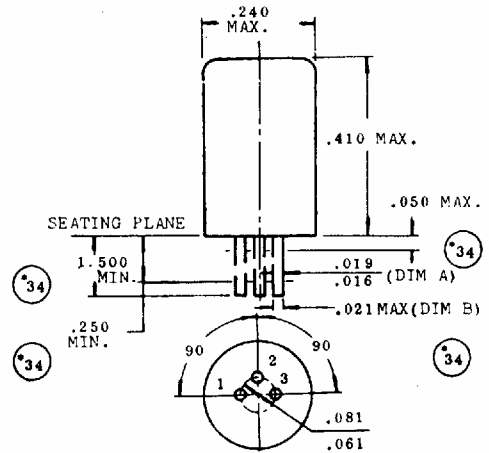
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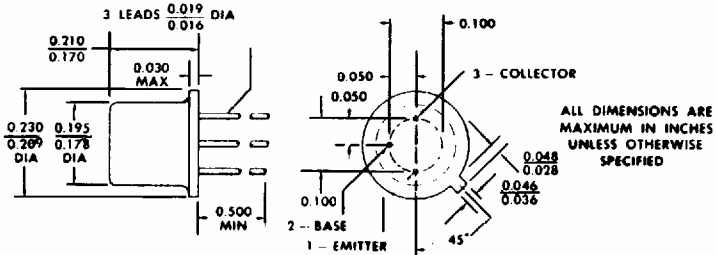
NS257



TO-1



TO-18



THE COLLECTOR IS ELECTRICAL CONTACT WITH THE CASE.

ALL JEDEC TO-18 DIMENSIONS AND NOTES ARE APPLICABLE.



GERMANIUM POWER DEVICES CORP.