

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	$R_{\theta JA}$ 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_{CER} V	V_{CES} V	CURRENT GAIN				SATURATION VOLTAGES				θ_{J-C} °C/W
							h_{FE} Min.	h_{FE} Max.	V_{CE} @ I_C V	I_C @ I_B A	$V_{CE(s)}$ V	$V_{BE(s)}$ V	I_C @ I_B A	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][illegible]

Technical drawing of a 1/2-20 UNF-2A plug-in connector. The drawing shows a side view of the connector with various dimensions and labels. Dimensions include: .100 ± .010, .200 ± .010, .437 ± .010, .510 MAX, 1.500 MIN, .025 ± .003, .445 ± .010, .850 MAX, .335 ± .010, .035 MAX, and 10-32 UNF 2A. Labels A, B, C, D, and E point to specific features of the connector.

Technical drawing of a hex head screw. The drawing includes a side view and a top view. Key dimensions and callouts are as follows:

- Side View Dimensions:**
 - UNDERCUT 1.0" $\pm .010$
 - Hex head height: $.500 \pm .015$ MAX.
 - Thread length: 1.500 MIN.
 - Thread pitch: 1/2-20 UNF 2A
 - Thread diameter: $.025 \pm .003$
 - Hex head outer diameter: $1.00 \pm .010$
- Top View Dimensions:**
 - Hex head outer diameter: $1.00 \pm .010$
 - Hex head width across flats: $.875$ MAX.
 - Hex head width across corners: $.750 \pm .010$
 - Thread relief: $.200 \pm .010$
 - Thread diameter: $.100 \pm .010$
- Callouts:**
 - A: Hex head
 - B: Thread
 - C: Thread relief
 - E: Hex head
- NOTE 1:** THREAD RELIEF IS .080 MAX. BY .430 DIA. NOMINAL.

[illegible]

Technical drawing of a mechanical part showing front and top views with dimensions.

Front View Dimensions:

- Top width: .875 MAX.
- Top thickness: .250
- Shoulder thickness: .450
- Base thickness: .560
- Base width: .680
- Internal hole diameter: .135 MAX.
- Left side thickness: .500
- Left side hole diameter: .581

Top View Dimensions:

- Overall width: 1.177
- Overall depth: .675
- Inner width: .655
- Inner depth: .675
- Right side thickness: .125
- Right side hole diameter: .210
- Left side thickness: .420
- Left side hole diameter: .440
- Bottom thickness: .151
- Bottom hole diameter: .275
- Radius: 188 R MAX.
- Radius: .525 MAX. RAD.

Technical drawing of a transistor package showing side and top views with dimensions.

Side View Dimensions:

- Overall width: 1.250 DIA MAX.
- Base width: 1.005 DIA MAX.
- Base thickness: .210 MAX.
- Emitter thickness: .360 MAX.
- Lead height: .500
- Lead thickness: .375
- Lead diameter: .312
- Lead length: .210 MAX.
- Lead pitch: .610
- Lead thread: 10-32 UNF-2A
- Lead diameter: .137
- Lead diameter: .123

Top View Dimensions:

- Base diameter: .140 DIA. MAX.
- Base radius: .345 R
- Emitter diameter: .140 DIA. MAX.
- Base label: BASE
- Emitter label: EMITTER

CASE OUTLINE DRAWINGS & DIMENSIONS

[illegible]

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

Top View Dimensions:

- Overall width: 620 MAX.
- Top flange width: 470, 500.
- Top flange thickness: .050 MAX.
- Central hole diameter: .028, .034.
- Distance from top flange to central hole: .958.
- Distance from central hole to right edge: .570, .590.
- Right edge thickness: .360 MIN.
- Bottom flange width: .190, .093, .210, .107.
- Bottom flange thickness: .145 R MAX.
- Bottom flange radius: .142, .152.
- Bottom flange hole diameter: .350 R MAX.

Side View Dimensions:

- Overall height: 250, .340.
- Top flange thickness: .050 MAX.
- Central hole diameter: .028, .034.
- Distance from top flange to central hole: .958.
- Distance from central hole to right edge: .570, .590.
- Right edge thickness: .360 MIN.
- Bottom flange width: .190, .093, .210, .107.
- Bottom flange thickness: .145 R MAX.
- Bottom flange radius: .142, .152.
- Bottom flange hole diameter: .350 R MAX.

Technical drawing of a mechanical part with dimensions and labels:

- Top dimensions: .402, .387, .789, .650, .670
- Left side dimensions: .288 MAX., .094, .084
- Right side dimensions: 3/8 MIN., .212, .218, 2 PINS, .042, .038
- Bottom dimensions: .157, .161, 2 HOLES, .427, .433, .429, .546, .552, .692, .695, 1.189, 1.185, 1.492, 1.472
- Other labels: B, E, .005

Technical drawing of the 1N4148 diode showing side and top views with dimensions.

Side View Dimensions:

- Top flange thickness: .25
- Threaded section length: .09
- Bottom flange thickness: .25
- Lead length: .53
- Lead diameter: .09 DIA. (3)
- Thread specification: 1-1/4 - 16UN - 2A
- Component: HEX NUT

Top View Dimensions:

- Hexagonal base width: .58
- Base thickness: .02
- Collector diameter: .29
- Emitter diameter: .29
- Base to emitter distance: 1.5
- Labels: BASE, COLLECTOR, EMITTER

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

#1/4 - 28UNF-2A

1.00

.50

.04

.390 ± .025

.090 MAX.

1.110 MAX.

.343 REF.

.312 REF.

.290 REF.

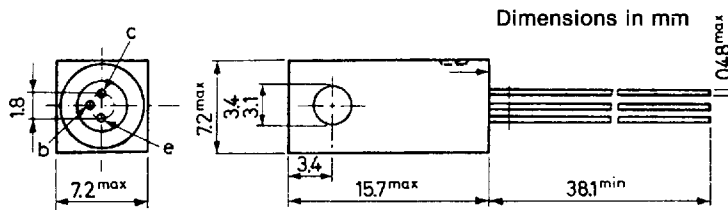
.112 REF.

Technical drawing of the 8-32NC-2A plug gage. The drawing shows a top view and a side view. The top view is a circle with a diameter of .152. It has two threaded holes, each with a diameter of .054 and a depth of .107. The side view shows a plug with a diameter of .060 and a length of .250. The plug is labeled '8-32NC-2A'.

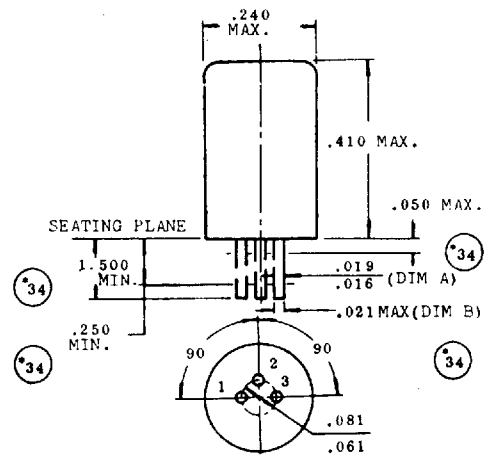
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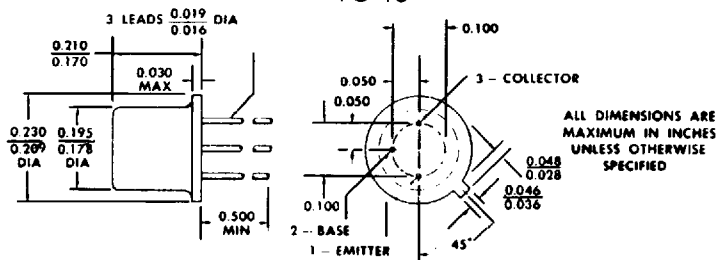
NS257



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.

300 Brickstone Square · York Street · P.O. Box 3065
Shawsheen Village Station · Andover, Massachusetts 01810
Telephone (508) 475-5982 · FAX (508) 470-1512

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