

GERMANIUM POWER TRANSISTORS

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
							Min.	h_{FE} Max.	$V_{CE} @ I_C$ V	A	$V_{CE(s)}$ V	$V_{BE(s)}$ V	$I_C @ I_B$ A	A	

15 AMP GERMANIUM PNP (Cont.)

2N1553A	TO-3	40		20.0		30	30	60	2.0	10.0	.70		10.0	1.000	.80
2N1554	TO-3	60	30	30.0		45	30	60	2.0	10.0	.50		10.0	1.000	.80
2N1554A	TO-3	60		30.0		45	30	60	2.0	10.0	.70		10.0	1.000	.80
2N1555	TO-3	80	40	40.0		60	30	60	2.0	10.0	.50		10.0	1.000	.80
2N1555A	TO-3	80		40.0		60	30	60	2.0	10.0	.70		10.0	1.000	.80
2N1556	TO-3	100	50	50.0		75	30	60	2.0	10.0	.50		10.0	1.000	.80
2N1556A	TO-3	100		50.0		75	30	60	2.0	10.0	.70		10.0	1.000	.80
2N1557	TO-3	40	20	20.0		30	50	100	2.0	10.0	.40		10.0	1.000	.80
2N1557A	TO-3	40		20.0		30	50	100	2.0	10.0	.50		10.0	1.000	.80
2N1558	TO-3	60	30	30.0		45	50	100	2.0	10.0	.40		10.0	1.000	.80
2N1558A	TO-3	60		30.0		45	50	100	2.0	10.0	.50		10.0	1.000	.80
2N1559	TO-3	80	40	40.0		60	50	100	2.0	10.0	.40		10.0	1.000	.80
2N1559A	TO-3	80		40.0		60	50	100	2.0	10.0	.50		10.0	1.000	.80
2N1560	TO-3	100	50	50.0		75	50	100	2.0	10.0	.40		10.0	1.000	.80
2N1560A	TO-3	100		50.0		75	50	100	2.0	10.0	.50		10.0	1.000	.80
2N1970	TO-36	100	50	40.0			17	40	2.0	5.0	1.00		12.0	2.000	.80
2N1980	TO-36	50	30	20.0			50	100	2.0	5.0	.50		5.0	.500	.50
2N1981	TO-36	70	40	20.0			50	100	2.0	5.0	.50		5.0	.500	.50
2N1982	TO-36	90	50	20.0			50	100	2.0	5.0	.50		5.0	.500	.50
2N2075	TO-36	80	60	40.0		80	20	40	2.0	5.0	.70		12.0	2.000	.50
2N2076	TO-36	70	55	35.0		70	20	40	2.0	5.0	.70		12.0	2.000	.50
2N2077	TO-36	50	45	25.0		50	20	40	2.0	5.0	.90		12.0	2.000	.50
2N2078	TO-36	40	25	20.0		40	20	40	2.0	5.0	.90		12.0	2.000	.50
2N2079A	TO-36	80	65	40.0		80	35	70	2.0	5.0	.70		12.0	2.000	.50
2N2080	TO-36	70	55	35.0		70	35	70	2.0	5.0	.70		12.0	2.000	.50
2N2081	TO-36	50	45	25.0		50	35	70	2.0	5.0	.90		12.0	2.000	.50
2N2082	TO-36	40	25	20.0		40	35	70	2.0	5.0	.90		12.0	2.000	.50
2N2612	TO-3	65	30	30.0			85	250	2.0	10.0	1.00		10.0	.150	1.00

15 AMP GERMANIUM PNP TETRODES

3N49	MT-70	60	35				30	120	2.0	5.0	.40		5.0	.500	.80
3N50	MT-70	80	50				20	80	2.0	5.0	.40		5.0	.500	.80
3N51	MT-70	40	25				30	120	2.0	5.0	.40		5.0	.500	.80
3N52	MT-70	60	40				20	80	2.0	5.0	.40		5.0	.500	.80

Type Number	Case Type	$V_{CEO(max)}$ V	V_{EBO} V	h_{FE} @ I_C/V_{CE} (Min-Max @ A/V)	$V_{CE(sat)}$ @ I_C/I_B (V @ A/A)	V_{BE} @ I_C/V_{CE} (V @ A/V)	I_{CEV} @ V_{CE} (mA @ V)	$P_D @$ $T_C = 25^\circ C$ (watts)	θ_{JC} (°C/W)	$T_{J(max)}$ (°C)	f_T (KHz)
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15 TO 65 AMP GERMANIUM PNP

2N2490	TO-36	50	40	20-40@5/2	.7@12/2	.9@5/2	3@70	170	0.5	110	
2N2491	TO-36	40	30	35-70@5/2	.7@12/2	.9@5/2	3@60	170	0.5	110	
2N2492	TO-36	65	60	25-50@5/2	.5@12/2	.8@5/2	2@80	170	0.5	110	
2N1518	TO-36	40	30	15-60@15/4	.7@25/4	1.5@25/3	4@50	70	0.8	95	
2N1519	TO-36	60	30	15-60@15/4	.7@25/4	1.5@25/3	4@80	70	0.8	95	

Type Number	Case Type	V_{CBO} V	V_{CEO} V	V_{EBO} V	V_{CER} V	V_{CES} V	Min.	h_{FE}	Max.	$V_{CE} @ I_C$ V A	$V_{CE(s)}$ V	$V_{BE(s)}$ V	$I_C @ I_B$ A A	θ_{J-C} °C/W
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25 AMP GERMANIUM PNP

2N511	TO-41	40	20	30.0		50	20	60	2.0	10.0	.50		10.0	1.000	.50
2N511A	TO-41	60	30	30.0		60	20	60	2.0	10.0	.50		10.0	1.000	.50
2N511B	TO-41	80	40	30.0		65	20	60	2.0	10.0	.50		10.0	1.000	.50
2N512	TO-41	40		30.0		50	20	60	2.0	15.0	1.00		15.0	2.250	.50
2N512A	TO-41	60		30.0		60	20	60	2.0	15.0	1.00		15.0	2.250	.50
2N512B	TO-41	80		30.0		65	20	60	2.0	15.0	1.00		15.0	2.250	.50
2N513	TO-41	40	20	30.0		20	60	60	2.0	20.0	1.25		20.0	3.000	.50
2N513A	TO-41	60	30	30.0		20	60	60	2.0	20.0	1.25		20.0	3.000	.50
2N513B	TO-41	80	40	30.0		20	60	60	2.0	20.0	1.25		20.0	3.000	.50
2N514	TO-41	40	40	30.0		20	60	60	2.0	25.0	1.25		25.0	3.750	.70
2N514A	TO-41	60	50	30.0		20	60	60	2.0	25.0	1.25		25.0	3.750	.70
2N514B	TO-41	80	60	30.0		20	60	60	2.0	25.0	1.25		25.0	3.750	.70
2N575	MT-7	60	50	28.0		10	20	25.0	2.0	25.0	.50		10.0	2.000	.40
2N575A	MT-7	80	55	28.0		10	20	25.0	2.0	25.0	.50		10.0	2.000	.40
2N1162	TO-3	50		25.0		35	15	65	1.0	25.0	.80		25.0	1.600	.80

CASE OUTLINE DRAWINGS & DIMENSIONS

Technical drawing of a mechanical part with dimensions:

- Top view:
 - Overall width: .335
 - Inner width: .370
 - Inner width: .205
 - Inner width: .335
 - Height of top section: .260
 - Height of bottom section: .240
 - Overall height: 1.50 MIN
 - Left side thickness: .008
 - Left side thickness: .125
 - Bottom thickness: .019
 - Bottom thickness: .016
- Bottom view:
 - Overall width: .200
 - Overall width: .100
 - Radius: R.029
 - Radius: .045
 - Angle: 45°
 - Radius: .034
 - Radius: .028

Technical drawing of a 1/2-20 UNF-2A plug gage. The drawing shows a cross-section of the gage with various dimensions and feature callouts. The top section is a hexagonal head with a diameter of .510 MAX. The head has a central hole with a diameter of .100 ± .010 and a depth of .200 ± .010. The head is labeled with 'C', 'B', and 'E'. The head is attached to a shaft with a diameter of .437 ± .010. The shaft has a length of 1.500 MIN. The shaft is attached to a base with a diameter of .850 MAX. The base has a length of .445 ± .010. The base is attached to a threaded section with a diameter of .035 MAX. The threaded section has a length of .335 ± .010. The threaded section is labeled with '1/2-20 UNF-2A'.

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

Side View Dimensions:

- Overall width: 1.250 DIA. MAX.
- Base diameter: 1.005 DIA. MAX.
- Base thickness: .210
- Base to emitter distance: .180
- Emitter diameter: .360 MAX.
- Emitter to base distance: .500
- Emitter to base distance (alternative): .375
- Emitter to base distance (alternative): .312
- Emitter to base distance (alternative): .210
- Emitter to base distance (alternative): .610 MAX.
- Emitter to base distance (alternative): .137
- Emitter to base distance (alternative): .123
- Emitter to base distance (alternative): 10-32 UNF-2A

Top View Dimensions:

- Base diameter: .140 DIA. MAX.
- Base diameter: .345 R
- Emitter diameter: .345 R

CASE OUTLINE DRAWINGS & DIMENSIONS

Technical drawing of a 28-pin DIP package. The side view shows a package with a width of 0.30 inches (DIA) and a height of 0.25 inches (725/690). The top view shows a square package with a side length of 0.50 inches (DIA). The package has 28 pins, with 14 pins on each side. The pins are labeled 1 through 28. The package is labeled "28 UNF-28" and "250 WIP". The package is labeled "FULL THREAD". The package is labeled "SOLDER LUGS".

Technical drawing of a 1N4148 diode. The top view shows a hexagonal base with a diameter of .58. The base has a thickness of .02. The collector and emitter are located on the base, with a distance of .29 between them. The side view shows the diode's profile with a total height of .75. The base has a diameter of .53. The diode is labeled with "HEX NUT" and "1-1/4 - 16UN - 2A".

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

SEATING PLANE

Dimensions:

- .275 / .500
- .100 / .312
- 1.25 MAX.
- .040 / .095
- .1658 / .1697
- .090 / .140
- .375 / .500
- .610 / .710

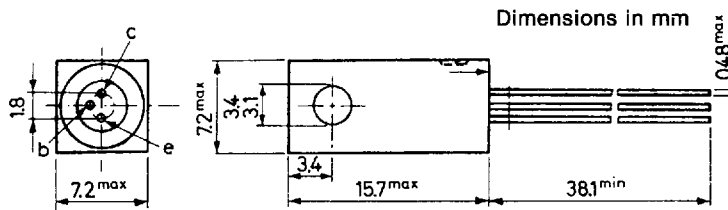
End View Dimensions:

- .990 MIN.
- .335 / .395
- 90°
- 1, 2

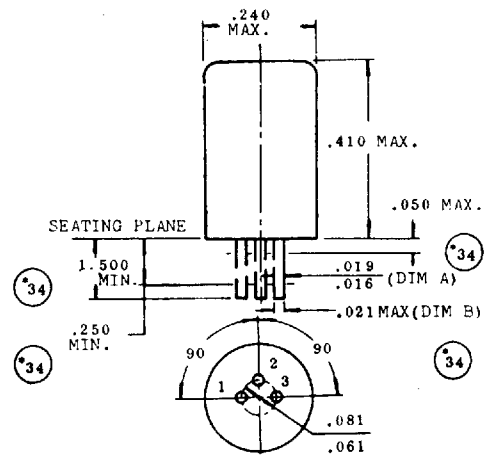
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CASE OUTLINE DRAWINGS & DIMENSIONS

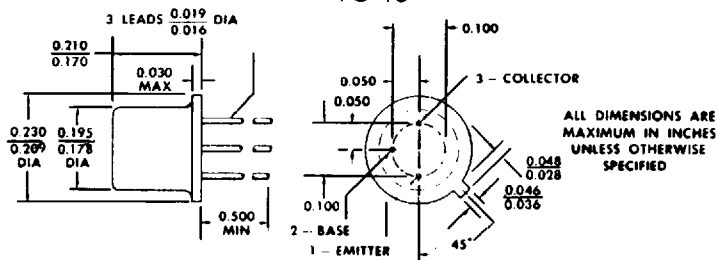
NS257



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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