

**$I_{C(MAX)} = 10-20A$**   
 **$V_{CEO(SUS)} = 80-100V$**   
 **$f_T = 10-50 MHz$**

# NPN TO-61

## ISOLATED COLLECTOR

Case 806

Type No.	V <sub>CEO</sub> (SUS) (V)	I <sub>C</sub> (MAX) (A)	h <sub>FE</sub> @ I <sub>C</sub> /V <sub>CE</sub> (min-max @ A/V)	V <sub>CE</sub> (SAT) @ I <sub>C</sub> /I <sub>B</sub> (V @ A/A)	V <sub>BE</sub> (SAT) @ I <sub>C</sub> /I <sub>B</sub> (V @ A/A)	I <sub>CEV</sub> @ V <sub>CE</sub> (mA @ V)	P <sub>D</sub> @ T <sub>C</sub> = 100°C (Watts)	f <sub>T</sub> @ V <sub>CE</sub> t = 1 sec (A @ V)	f <sub>T</sub> (MHz)	t <sub>1N</sub> @ I <sub>C</sub> /I <sub>B</sub> (μs @ A/A)	t <sub>OFF</sub> @ I <sub>C</sub> /I <sub>B</sub> (μs @ A/A)
2N5006	80	10	30-90@5/5	1.5@10/1	1.8@5/5	1 <sup>g</sup> @100	67	3.1@32	30	3 <sup>h</sup> @5/5	1.5 <sup>i</sup> @5/5
2N5008	80	10	70-200@5/5	1.5@10/1	1.8@5/5	1 <sup>g</sup> @100	67	3.1@32	40	3 <sup>h</sup> @5/5	1.5 <sup>i</sup> @5/5
2N5288	100	10	30-90@5/5	1.5@10/1	1.8@5/5	1 <sup>g</sup> @120	67	3.1@32	30	3 <sup>h</sup> @5/5	1.5 <sup>i</sup> @5/5
2N5289	100	10	70-200@5/5	1.5@10/1	1.8@5/5	1 <sup>g</sup> @120	67	3.1@32	30	3 <sup>h</sup> @5/5	1.5 <sup>i</sup> @5/5
2N5317	80	10	30-90@5/5	6@5/5	1.2@5/5	.01@80	50	2.5@20	30	4.3@5/5	1.6@5/5
2N5319	100	10	30-90@5/5	6@5/5	1.2@5/5	.01@100	50	2.5@20	30	4.3@5/5	1.6@5/5
2N5731	80	20	30-300@5/2	1.2@10/1	1.5@10/1	1 <sup>g</sup> @100	50	4 <sup>l</sup> @25	30	3.3@5/5	3.6@5/5
2N5957	100	20	30-120@10/10	4@5/5	2@20/2	5 <sup>g</sup> @100	100	4@25	10	5.3@20/2	1@20/2
2N6128	80	10	30-120@5/5	9@5/5	2.2 <sup>k</sup> @10/5	1 <sup>g</sup> @100	67	2.96@35	50	3 <sup>h</sup> @5/5	1.5 <sup>i</sup> @5/5

NOTES: b) I<sub>CB0</sub> @ V<sub>CB</sub> (mA @ V) g) I<sub>CS</sub> @ V<sub>CE</sub> (mA @ V) k) V<sub>BE</sub> @ I<sub>C</sub>/V<sub>CE</sub> (V @ A/V) l) (typical)

**$I_{C(MAX)} = 3-10A$**   
 **$V_{CEO(SUS)} = 30-250V$**   
 **$f_T = 30-250 MHz$**

# NPN TO-111

## ISOLATED COLLECTOR

Case 810  
Case 811

Type No.	V <sub>CEO</sub> (SUS) (V)	I <sub>C</sub> (MAX) (A)	h <sub>FE</sub> @ I <sub>C</sub> /V <sub>CE</sub> (min-max @ A/V)	V <sub>CE</sub> (SAT) @ I <sub>C</sub> /I <sub>B</sub> (V @ A/A)	V <sub>BE</sub> (SAT) @ I <sub>C</sub> /I <sub>B</sub> (V @ A/A)	I <sub>CEV</sub> @ V <sub>CE</sub> (mA @ V)	P <sub>D</sub> @ T <sub>C</sub> = 100°C (Watts)	f <sub>T</sub> @ V <sub>CE</sub> t = 1 sec (A @ V)	f <sub>T</sub> (MHz)	t <sub>1N</sub> @ I <sub>C</sub> /I <sub>B</sub> (μs @ A/A)	t <sub>OFF</sub> @ I <sub>C</sub> /I <sub>B</sub> (μs @ A/A)
2N3744	30	5	20-60@1/5	2@5/5	1.2@1/1	01@60	30	3@10	30	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3745	50	5	20-60@1/5	2@5/5	1.2@1/1	01@80	30	3@10	30	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3746	70	5	20-60@1/5	2@5/5	1.2@1/1	01@100	30	3@10	30	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3747	30	5	40-120@1/5	2@5/5	1.2@1/1	01@60	30	3@10	40	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3748	50	5	40-120@1/5	2@5/5	1.2@1/1	01@80	30	3@10	40	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3749	70	5	40-120@1/5	2@5/5	1.2@1/1	01@100	30	3@10	40	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3750	30	5	100-300@1/5	2@5/5	1.2@1/1	01@60	30	3@10	50	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3751	50	5	100-300@1/5	2@5/5	1.2@1/1	01@80	30	3@10	50	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3752	70	5	100-300@1/5	2@5/5	1.2@1/1	01@100	30	3@10	50	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N3996	80	5	40-120@1/2	2@5/5	6-1.2@1/1	.005 <sup>g</sup> @90	30	1.5@20	40	3@1/1	1.5@1/1
2N3997	80	5	80-240@1/2	2@5/5	6-1.2@1/1	.005 <sup>g</sup> @90	30	1.5@20	40	3@1/1	2@1/1
2N4075 <sup>a</sup>	80	3	30-90@1/2	1@2/2	1.3@1/1	1 <sup>g</sup> @100	17	3@10	30	3@1/1.05	1.5@1/1.05
2N4076 <sup>a</sup>	80	3	50-150@1/2	1@2/2	1.3@1/1	1 <sup>g</sup> @100	17	3@10	30	3@1/1.05	1.5@1/1.05
2N4115	80	5	40-120@2/5	1.5@5/5	1.3@2/2	2 <sup>g</sup> @120	37	3.5@10	50	2 <sup>h</sup> @2/2	1.5 <sup>i</sup> @2/2
2N4116	80	5	100-300@2/5	1.5@5/5	1.3@2/2	2 <sup>g</sup> @120	37	3.5@10	70	2 <sup>h</sup> @2/2	1.5 <sup>i</sup> @2/2
2N4998	80	2	30-90@1/5	.85@2/2	1.2@1/1	1 <sup>g</sup> @100	20	1.1@32	50	3 <sup>h</sup> @1/1	1.5 <sup>i</sup> @1/1
2N5000 <sup>a</sup>	80	2	70-200@1/5	.85@2/2	1.2@1/1	1 <sup>g</sup> @100	20	1.1@32	50	3 <sup>h</sup> @1/1.05	1.5 <sup>i</sup> @1/1.05
2N5002	80	5	30-90@2.5/5	1.5@5/5	1.45@2.5/25	1 <sup>g</sup> @100	33	1.8@32	60	3 <sup>h</sup> @2/2	1.5 <sup>i</sup> @2/2
2N5004	80	5	70-200@2.5/5	1.5@5/5	1.45@2.5/25	1 <sup>g</sup> @100	33	1.8@32	70	3 <sup>h</sup> @2/2	1.5 <sup>i</sup> @2/2
2N5074	200	3	30-110@5/5	2@3/3	2.2@3/3	25@200	40	.78@90	40		
2N5075	200	3	90-250@5/5	2@3/3	2.2@3/3	25@200	40	.78@90	40		
2N5076	250	3	30-110@5/5	2@3/3	2.2@3/3	25@250	40	.78@90	40		
2N5077	250	3	90-250@5/5	2@3/3	2.2@3/3	25@250	40	.78@90	40		
2N5083	60	10	40-120@2/2	1@10/2	1.3@5/5	1 <sup>g</sup> @120	20	2.7@13	50	3.5@5/5	.65@5/5
2N5084	60	10	100-300@2/2	1@10/2	1.3@5/5	1 <sup>g</sup> @120	20	2.7@13	80	3.5@5/5	.65@5/5
2N5085	80	5	40-120@2/2	1@10/2	1.3@5/5	1 <sup>g</sup> @150	20	2.7@13	50	3.5@5/5	.65@5/5
2N5284	100	5	30-90@2.5/5	1.5@5/5	1.45@2.5/25	1 <sup>g</sup> @120	33	1.8@32	60	3 <sup>h</sup> @2/2	1.5 <sup>i</sup> @2/2
2N5285	100	5	70-200@2.5/5	1.5@5/5	1.45@2.5/25	1 <sup>g</sup> @120	33	1.8@32	70	3 <sup>h</sup> @2/2	1.5 <sup>i</sup> @2/2
2N5346	80	7	30-120@2/2	1.2@7/7	1.2@2/2	.01 <sup>b</sup> @80	34	6@10	30	2@2/2	2.2@2/2
2N5347	80	7	60-140@2/2	1.2@7/7	1.2@2/2	.01 <sup>b</sup> @80	34	6@10	30	2@2/2	2.2@2/2
2N5348	100	7	30-120@2/2	1.2@7/7	1.2@2/2	.01 <sup>b</sup> @100	34	6@10	30	2@2/2	2.2@2/2
2N5349	100	7	60-240@2/2	1.2@7/7	1.2@2/2	.01 <sup>b</sup> @100	34	6@10	30	2@2/2	2.2@2/2
2N5730	80	10	30-300@2/2	1.2@5/5	1.5@5/5	1 <sup>g</sup> @100	30		30	3 <sup>h</sup> @2/2	3.5@2/2

NOTES: b) I<sub>CB0</sub> @ V<sub>CB</sub> (mA @ V) g) I<sub>CS</sub> @ V<sub>CE</sub> (mA @ V) l) (typical)

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