

# Small Signal Transistors

## TO-39 Case (Continued)



TYPE NO.	DESCRIPTION	V <sub>CBO</sub>	V <sub>CEO</sub>	V <sub>EBO</sub>	I <sub>CBO</sub>	@ V <sub>CB</sub>	h <sub>FE</sub>		@ I <sub>C</sub>	@ V <sub>CE</sub>	V <sub>CE(SAT)</sub>	@ I <sub>C</sub>	f <sub>T</sub>	C <sub>ob</sub>	t <sub>on</sub>	t <sub>off</sub>	NF
		(V)	(V) *V <sub>CER</sub>	(V)	(μA) *I <sub>CEO</sub> **I <sub>CEB</sub> ***I <sub>CEV</sub> ****I <sub>CER</sub>	(V)	MIN	MAX	(mA)	(V)	(V)	(mA)	(MHz)	(pF)	(ns)	(ns)	(dB)
		MIN	MIN	MIN							MAX	MIN	MAX	MAX	MAX	MAX	
2N2854	NPN AMPL/SWITCH	60	40	5.0	0.10	40	100	300	1,000	1.0	0.40	1,000	--	--	--	--	--
2N2855	NPN AMPL/SWITCH	60	40	5.0	0.10	40	40	120	1,000	1.0	0.40	1,000	--	--	--	--	--
2N2890	NPN AMPL/SWITCH	100	80	5.0	0.50	60	30	90	1,000	2.0	0.50	1,000	30	70	--	--	--
2N2891	NPN AMPL/SWITCH	100	80	5.0	0.50	60	50	150	1,000	2.0	0.50	1,000	30	70	--	--	--
2N2904A	PNP AMPL/SWITCH	60	60	5.0	0.10	50	40	120	150	10	0.40	150	200	8.0	--	--	--
2N2905A	PNP AMPL/SWITCH	60	60	5.0	0.10	50	100	300	150	10	0.40	150	200	8.0	--	--	--
2N2927	PNP AMPL/SWITCH	30	25	4.0	--	--	30	130	50	5.0	0.25	50	100	20	--	--	--
2N2951	NPN AMPL/SWITCH	60	20	5.0	0.10	50	20	150	10	10	0.50	150	200	8.0	--	--	--
2N2958	NPN AMPL/SWITCH	60	20	5.0	0.025	50	40	120	150	10	0.50	150	250	8.0	--	--	--
2N2959	NPN AMPL/SWITCH	60	20	5.0	0.025	50	100	300	150	10	0.50	150	250	8.0	--	--	--
2N2960	NPN AMPL/SWITCH	60	30	5.0	--	--	100	300	150	10	0.50	150	250	8.0	--	--	--
2N2961	NPN AMPL/SWITCH	60	30	5.0	--	--	100	300	150	10	2.00	500	250	8.0	--	--	--
2N3015	NPN CORE DRIVER	60	30	5.0	0.20	30	30	120	150	10	0.40	150	250	8.0	--	60	--
2N3019	NPN AMPL/SWITCH	140	80	7.0	0.10	90	100	300	150	10	0.20	150	100	12	--	--	--
2N3020	NPN AMPL/SWITCH	140	80	7.0	0.10	90	40	120	150	10	0.20	150	100	12	--	--	--
2N3053	NPN AMPL/SWITCH	60	40	5.0	0.25	30	50	250	150	10	1.40	150	100	15	--	--	--
2N3072	PNP AMPL/SWITCH	60	60	4.0	0.01**	30	30	130	50	1.0	1.00	300	130	10	--	--	--
2N3107	NPN AMPL/SWITCH	100	60	7.0	0.01**	60	100	300	150	10	1.00	1,000	70	20	--	--	--
2N3108	NPN AMPL/SWITCH	100	60	7.0	0.01*	60	40	120	150	10	1.00	1,000	60	20	--	--	--
2N3109	NPN AMPL/SWITCH	80	40	7.0	0.01*	60	100	300	150	10	0.25	150	70	25	--	--	--
2N3110	NPN AMPL/SWITCH	80	40	7.0	0.01*	60	40	120	150	10	0.25	150	60	25	--	--	--
2N3114	NPN HIGH VOLTAGE	150	150	5.0	0.01	100	30	120	30	10	1.00	50	40	9.0	--	--	--
2N3119	NPN AMPL/SWITCH	100	80	4.0	50	60	50	200	100	10	0.50	100	250	6.0	40	700	--
2N3120	PNP AMPL/SWITCH	45	45	4.0	0.01*	30	30	130	150	1.0	0.50	300	130	10	--	--	--
2N3122	NPN AMPL/SWITCH	50	30	5.0	--	--	25	100	300	10	1.50	300	60	25	--	--	--
2N3133	PNP AMPL/SWITCH	50	35	4.0	0.50	30	40	120	150	10	0.60	150	200	10	--	--	--
2N3134	PNP AMPL/SWITCH	50	35	4.0	0.50	30	100	300	150	10	0.60	150	200	10	--	--	--
2N3137	NPN VHF/UHF OSC	40	20	4.0	0.50	20	20	120	50	5.0	0.30	50	500	3.5	--	--	--
2N3244	PNP CORE DRIVER	40	40	5.0	0.50	30	50	150	500	1.0	1.00	1,000	175	25	50	185	--
2N3245	PNP CORE DRIVER	50	50	5.0	0.50	30	30	90	500	1.0	1.20	1,000	150	25	55	165	--
2N3252	NPN CORE DRIVER	60	30	5.0	0.50	40	30	90	500	1.0	1.00	1,000	200	12	45	70	--
2N3253	NPN CORE DRIVER	75	40	5.0	0.50	60	25	75	500	1.0	1.20	1,000	175	12	50	70	--
2N3299	NPN AMPL/SWITCH	60	30	5.0	0.01**	50	40	120	150	10	0.60	500	250	8.0	60	150	--
2N3300	NPN AMPL/SWITCH	60	30	5.0	0.01**	50	100	300	150	10	0.60	500	250	8.0	60	150	--
2N3326	NPN AMPL/SWITCH	60	40	5.0	0.10	50	40	120	150	10	0.40	150	250	8.0	--	--	--
2N3388	NPN AMPL/SWITCH	125	100	6.0	--	--	60	--	2.5	5.0	1.00	2.5	36	35	--	--	--
2N3420	NPN AMPL/SWITCH	85	60	6.0	0.50***	80	40	160	1,000	2.0	0.50	2,000	40	150	--	--	--
2N3421	NPN AMPL/SWITCH	125	80	8.0	0.50***	120	40	160	1,000	2.0	0.50	2,000	40	150	--	--	--
2N3439	NPN HIGH VOLTAGE	450	350	7.0	20	360	40	160	20	10	0.50	50	15	10	--	--	--
2N3440	NPN HIGH VOLTAGE	300	250	7.0	20	250	40	160	20	10	0.50	50	15	10	--	--	--

(04-April 2014)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



---

### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

---

### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

---

### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

---

### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

---

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)