

# Small Signal Transistors

## TO-92 Case



TYPE NO.	DESCRIPTION	LEAD CODE	V <sub>CBO</sub>	V <sub>CEO</sub>	V <sub>EBO</sub>	I <sub>CBO</sub> @	V <sub>CB</sub>	h <sub>FE</sub>		@ V <sub>CE</sub>	@ I <sub>C</sub>	V <sub>CE (SAT)</sub> @ I <sub>C</sub>		C <sub>ob</sub>	f <sub>T</sub>	NF	t <sub>off</sub>
			(V)	(V)	(V)	(nA)	(V)	MIN	MAX	(V)	(mA)	(V)	(mA)	(pF)	(MHz)	(dB)	
			MIN	*V <sub>CES</sub> MIN	MIN	*I <sub>CES</sub> MAX			*h <sub>FE</sub> (1kHz)				MAX	*C <sub>rb</sub> MAX	*TYP MIN	MAX	MAX
2N2712	NPN AMPL/SWITCH	ECB	18	18	5.0	500	18	75	250	--	--	--	--	12	--	2.8	--
2N2714	NPN AMPL/SWITCH	ECB	18	18	5.0	100	18	75	250	0.30	50	1.20	50	--	--	--	--
2N2923	NPN LOW NOISE	ECB	25	25	5.0	100	25	90	180*	--	--	--	--	10	160*	--	--
2N2924	NPN LOW NOISE	ECB	25	25	5.0	100	25	150	300*	--	--	--	--	10	160*	--	--
2N2925	NPN LOW NOISE	ECB	25	25	5.0	100	25	235	470*	--	--	--	--	10	160*	2.8	--
2N2926	NPN LOW NOISE	ECB	25	25	5.0	500	18	35	470*	--	--	--	--	10	120*	2.8	--
2N3391A	NPN LOW NOISE	ECB	25	25	5.0	100	25	250	500	4.50	2.0	--	--	10	120*	5.0	--
2N3392	NPN LOW NOISE	ECB	25	25	5.0	100	25	150	300	4.50	2.0	--	--	10	120*	--	--
2N3393	NPN LOW NOISE	ECB	25	25	5.0	100	25	90	180	4.50	2.0	--	--	10	120*	--	--
2N3395	NPN LOW NOISE	ECB	25	25	5.0	100	25	150	500	4.50	2.0	--	--	10	--	--	--
2N3396	NPN LOW NOISE	ECB	25	25	5.0	100	25	90	500	4.50	2.0	--	--	10	--	--	--
2N3397	NPN LOW NOISE	ECB	25	25	5.0	100	25	55	500	4.50	2.0	--	--	10	--	--	--
2N3398	NPN LOW NOISE	ECB	25	25	5.0	100	25	55	800	4.50	2.0	--	--	10	--	--	--
2N3415	NPN LOW NOISE	ECB	25	25	5.0	100	25	180	540	4.50	2.0	0.30	50	--	--	--	--
2N3416	NPN LOW NOISE	ECB	50	50	5.0	100	25	75	225	4.50	2.0	0.30	50	--	--	--	--
2N3417	NPN LOW NOISE	ECB	50	50	5.0	100	50	180	540	4.50	2.0	0.30	50	--	--	--	--
2N3702	PNP AMPL/SWITCH	ECB	40	25	5.0	100	20	60	300	5.0	0.05	0.25	50	12	100	--	--
2N3703	PNP AMPL/SWITCH	ECB	50	30	5.0	100	20	30	150	5.0	50	0.25	50	12	100	--	--
2N3704	NPN AMPL/SWITCH	ECB	50	30	5.0	100	20	100	300	2.0	50	0.60	100	12	100	--	--
2N3705	NPN AMPL/SWITCH	ECB	50	30	5.0	100	20	50	150	2.0	50	0.80	100	12	100	--	--
2N3706	NPN AMPL/SWITCH	ECB	40	20	5.0	100	20	30	600	2.0	50	1.0	100	12	100	--	--
2N3707	NPN LOW NOISE	ECB	30	30	6.0	100	20	100	400	5.0	1.0	1.0	10	--	--	5.0	--
2N3708	NPN LOW NOISE	ECB	30	30	6.0	100	20	45	660	5.0	1.0	1.0	10	--	--	5.0	--
2N3709	NPN LOW NOISE	ECB	30	30	6.0	100	20	45	165	5.0	1.0	1.0	10	--	--	5.0	--
2N3710	NPN LOW NOISE	ECB	30	30	6.0	100	20	90	330	5.0	1.0	1.0	10	--	--	5.0	--
2N3711	NPN LOW NOISE	ECB	30	30	6.0	100	20	180	660	5.0	1.0	1.0	10	--	--	5.0	--
2N3859A	NPN LOW NOISE	ECB	60	60	6.0	50	60	100	200	4.50	2.0	0.125	10	4.0	--	5.0	--
2N3860	NPN LOW NOISE	ECB	30	30	4.0	50	30	150	300	4.50	2.0	0.125	10	4.0	90	--	--
2N3903	NPN AMPL/SWITCH	EBC	60	40	6.0	50*	30	50	150	1.0	10	0.30	50	4.0	250	6.0	225
2N3904	NPN AMPL/SWITCH	EBC	60	40	6.0	50*	30	100	300	1.0	10	0.30	50	4.0	300	5.0	250
2N3905	PNP AMPL/SWITCH	EBC	40	40	5.0	50*	30	50	150	1.0	10	0.40	50	4.5	200	5.0	260
2N3906	PNP AMPL/SWITCH	EBC	40	40	5.0	50*	30	100	300	1.0	10	0.40	50	4.5	250	4.0	300
2N4058	PNP LOW NOISE	ECB	30	30	6.0	100	20	100	400	5.0	0.10	0.70	10	--	--	5.0	--
2N4123	NPN AMPL/SWITCH	EBC	40	30	5.0	50	20	50	150	1.0	2.0	0.30	50	4.0	250	6.0	--
2N4124	NPN AMPL/SWITCH	EBC	30	25	5.0	50	20	120	360	1.0	2.0	0.30	50	4.0	300	5.0	--
2N4125	PNP AMPL/SWITCH	EBC	30	30	4.0	50	20	50	150	1.0	2.0	0.40	50	4.5	200	5.0	--
2N4126	PNP AMPL/SWITCH	EBC	25	25	4.0	50	20	120	360	1.0	2.0	0.40	50	4.5	250	4.0	--
2N4264	NPN SAT SWITCH	EBC	30	15	6.0		12	40	160	1.0	10	0.35	100	4.0	350	--	35
2N4287	NPN LOW NOISE	ECB	45	45	7.0	10	30	150	600	5.0	1.0	0.35	1.0	6.0	40	5.0	--
2N4289	PNP LOW NOISE	ECB	60	45	7.0	10	45	150	600	0.35	1.0	0.80	1.0	8.0	40	4.0	--
2N4400	NPN AMPL/SWITCH	EBC	60	40	6.0	100*	35	50	150	1.0	150	0.75	500	6.5	200	--	255

**Central**  
Semiconductor Corp.  
www.centrasemi.com

Devices are available lead formed.  
See pages 216 thru 219 for details.  
Also available in Ammpack or Tape & Reel.  
See pages 230 thru 235 for details.

(14-May 2015)

## 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)