



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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# Dual Transistors

## TO-78 Case (Continued)



TYPE NO.	DESCRIPTION	I <sub>C</sub> (mA)	V <sub>CB0</sub> (V)	V <sub>CEO</sub> (V)	h <sub>FE</sub>		@ I <sub>C</sub> (mA)	@ V <sub>CE</sub> (V)	V <sub>CE(SAT)</sub> (V)	@ I <sub>C</sub> (mA)	f <sub>T</sub> (MHz)	MATCHING	
					MAX	MIN						h <sub>FE</sub> %	V <sub>BE</sub> (mV)
MD982	PNP AMPL/SWITCH	600	60	50	35	--	10	10	0.5	150	200	--	--
MD2219A	NPN AMPL/SWITCH	500	60	30	100	300	150	10	0.4	150	200	--	--
MD2369	NPN SAT SWITCH	500	40	15	40	140	10	1	0.25	10	500	--	--
MD2369A	NPN SAT SWITCH	500	40	15	40	140	10	1	0.25	10	500	10	5.0
MD2369B	NPN SAT SWITCH	500	40	15	40	140	10	1	0.25	10	500	20	10
MD2905A	PNP AMPL/SWITCH	600	60	60	100	300	150	10	0.4	150	200	--	--
MD5179	NPN VHF/UHF OSC	50	20	12	25	--	3.0	1.0	0.4	10	900	10	10
MD7000	NPN AMPL/SWITCH	500	50	30	40	--	300	30	0.4	150	200	--	--
MD7001	PNP AMPL/SWITCH	600	50	30	40	--	300	30	0.4	150	200	--	--
MD7002	NPN LOW NOISE	30	50	40	40	--	0.1	10	0.35	10	200	--	--
MD7002A	NPN LOW NOISE	30	50	40	40	--	0.1	10	0.35	10	200	25	25
MD7002B	NPN LOW NOISE	30	50	40	40	--	0.1	10	0.35	10	200	15	15
MD7003	PNP LOW NOISE	50	50	40	40	--	0.1	10	0.35	10	200	--	--
MD7003A	PNP LOW NOISE	50	50	40	40	--	0.1	10	0.35	10	200	25	25
MD7003B	PNP LOW NOISE	50	50	40	40	--	0.1	10	0.35	10	200	15	15
MD8001	NPN LOW NOISE	30	40	40	100	--	1.0	10	--	--	260*	--	15
MD8002	NPN LOW NOISE	30	50	50	100	--	1.0	10	--	--	260*	--	15
MD8003	NPN LOW NOISE	30	60	60	100	--	1.0	10	--	--	260*	--	15

Available on Special Order. Please Consult Factory.

2N4854*	MD984	MD3250,A	MD6502
2N4937	MD985*	MD3251,A	MD7004
2N4938	MD986	MD3725	MD7005
2N4939	MD1123	MD6002	MD7007,A
2N6502	MD1130	MD6003	MD7021*
MD918,A,B	MD1132	MD6100*	

\*NPN/PNP Complementary Types.

(6-December 2004)

**Central**<sup>™</sup>  
Semiconductor Corp.  
www.centralsemi.com

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### 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

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### 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).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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Main Fax: (631) 435-1824  
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[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)

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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)

# Product End of Life Notification

PDN ID:	PDN01061
Notification Date:	1/17/17
Last Buy Date:	7/17/17
Last Shipment Date	1/17/18

Summary: All transistors manufactured in the TO-78 package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CEN876	N/A
CEN894	N/A
CEN895	N/A
CEN896	N/A
CEN911	N/A
CEN947	N/A
CEN955 W/DATA	N/A
MD2219A	N/A
MD2369	N/A
MD2369A	N/A
MD2369B	N/A
MD2905	N/A
MD2905A	N/A
MD5179	N/A
MD7000	N/A
MD7001	N/A
MD7003	N/A
MD7003A	N/A
MD7003B	N/A
MD8002	N/A
MD8003	N/A
MD918	N/A
MD918A	N/A
MD918B	N/A
MD984	N/A
2N2060	N/A
2N2060A	N/A
2N2060M	N/A
2N2223	N/A
2N2223A	N/A
2N2453	N/A
2N2453A	N/A
2N2480	N/A
2N2480A	N/A
2N2639	N/A
2N2640	N/A
2N2641	N/A
2N2642	N/A

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DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

# Product End of Life Notification

<b>PDN ID:</b>	PDN01061
<b>Notification Date:</b>	1/17/17
<b>Last Buy Date:</b>	7/17/17
<b>Last Shipment Date</b>	1/17/18

\*\*\* CONTINUED FROM PRIOR PAGE \*\*\*

<u>Central Part Number</u>	<u>Replacement</u>
2N2643	N/A
2N2644	N/A
2N2652	N/A
2N2652A	N/A
2N2720	N/A
2N2721	N/A
2N2722	N/A
2N2903	N/A
2N2903A	N/A
2N2913	N/A
2N2914	N/A
2N2915	N/A
2N2915A	N/A
2N2916	N/A
2N2916A	N/A
2N2917	N/A
2N2918	N/A
2N2919	N/A
2N2919A	N/A
2N2920	N/A
2N2920A	N/A
2N3726	N/A
2N3727	N/A
2N3806	N/A
2N3807	N/A
2N3808	N/A
2N3809	N/A
2N3810	N/A
2N3810A	N/A
2N3811	N/A
2N3811A	N/A
2N4015	N/A
2N4016	N/A
2N4854	N/A
2N4937	N/A
2N4938	N/A
2N4939	N/A
2N5793	N/A
2N5794	N/A
2N5796	N/A
2N5912	N/A
2N6502	N/A

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http://www.centrasemi.com

# Product End of Life Notification

<b>PDN ID:</b>	PDN01061
<b>Notification Date:</b>	1/17/17
<b>Last Buy Date:</b>	7/17/17
<b>Last Shipment Date</b>	1/17/18

\*\*\* CONTINUED FROM PRIOR PAGE \*\*\*

**Central Part Number** \_\_\_\_\_ **Replacement** \_\_\_\_\_

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to [engineering@centrasemi.com](mailto:engineering@centrasemi.com).

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