imall

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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Dàta Sheet



MD918 MD918A MD918B

NPN DUAL SILICON TRANSISTOR

JEDEC TO-78 CASE

Manufacturers of World Class Discrete Semiconductors

DESCRIPTION

The CENTRAL SEMICONDUCTOR MD918 Series types are Silicon NPN Planar Epitaxial Dual Transistors designed for dual amplifier applications.

MAXIMUM RATINGS (TA=25°C)

	<u>SYMBOL</u>			<u>UNITS</u>
Collector-Base Voltage	V _{CBO}		30	V
Collector-Emitter Voltage	V _{CEO}		15	V
Emitter-Base Voltage	V _{EBO}		3.0	V
Collector Current	۱ _C		50	mA
Operating and Storage				
Junction Temperature	T _J ,T _{stg}	-65	o +200	°C
	-	EACH <u>TRANSISTOR</u>	TOTAL <u>PACKAGE</u>	
Power Dissipation	PD	550	600	mW
Power Dissipation (T _C =25°C)	PD	1.4	2.0	W
Thermal Resistance	Θ _{JA}	318	292	°C/W
Thermal Resistance	ΘlC	125	87.5	°C/W

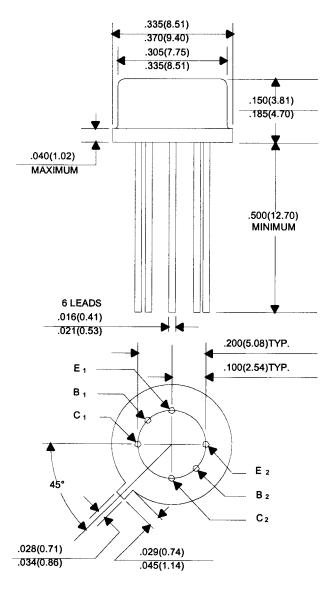
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	<u>UNITS</u>
ICBO	V _{CB} =15V		10	nA
ICBO	V _{CB} =15V, T _A =150°C		1.0	μA
BV _{CBO}	Ι _C =1.0μΑ	30		V
BVCEO	I _C =3.0mA	15		V
BVEBO	I _E =10μA	3.0		V
V _{CE(SAT)}	I _C =10mA, I _C =1.0mA		0.2	V
VBE(SAT)	I _B =10mA, I _C =1.0mA		0.9	V
h _{FE} `´´	V _{CE} =5.0V, I _C =3.0mA	50		
fт	V _{CE} =10V, I _C =4.0mA, f=100MHz	600		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=100kHz		1.7	pF
C _{ib}	V _{BE} =0.5V, I _C =0, f=100kHz		2.0	pF
NF	V _{CE} =6.0V, I _C =1.0mA, R _S =400Ω, f=60MHz		6.0	dB

ELECTRICAL CHARACTERISTICS (Continued)

SYMBOL	TEST CONDITIONS	MIN	MAX	<u>UNITS</u>
hFE1/hFE2	V _{CE} =5.0V, I _C =1.0mA (MD918A)	0.9	1.0	
^h FE1 ^{/h} FE2	V _{CE} =5.0V, I _C =1.0mA (MD918B)	0.8	1.0	
VBE1-VBE2	V _{CE} =5.0V, I _C =1.0mA (MD918A)		5.0	mV
VBE1-VBE2	V _{CE} =5.0V, I _C =1.0mA (MD918B)		10	mV
$\Delta V_{BE1} - V_{BE2} / \Delta T_A$	V _{CE} =5.0V, I _C =1.0mA, T _A =-55 to +125°C (MD918A)		10	μV/°C
$\Delta V_{BE1} - V_{BE2} / \Delta T_A$	V _{CE} =5.0V, I _C =1.0mA, T _A =-55 to +125°C (MD918B)		20	μV/°C

JEDEC TO-78 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).



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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 (2nd 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

CONTACT US

Corporate Headquarters & Customer Support Team

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Worldwide Field Representatives: www.centralsemi.com/wwreps

Worldwide Distributors: www.centralsemi.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: <u>www.centralsemi.com/terms</u>

www.centralsemi.com





http://www.centralsemi.com

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.

Central Part Number	Replacement	
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	
*** CONTINUED ***		

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.



http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01061
Notification Date:	1/17/17
Last Buy Date:	7/17/17
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*** CONTINUED FROM PRIOR PAGE ***

Central Part Number	Replacement
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

*** CONTINUED ***

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*** 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@centralsemi.com.

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