

SILICON PNP TRANSISTORS



## Central Semiconductor Corp.

www.centralsemi.com

### **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N4058 series devices are silicon PNP transistors designed for low level, low noise (2N4058), low level, high gain (2N4059, 2N4060, 2N4061, 2N4062) applications. Recommended NPN complementary series is 2N3707 thru 2N3711.

#### MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Collector-Base Voltage	V <sub>CBO</sub>	30	V
Collector-Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter-Base Voltage	V <sub>EBO</sub>	6.0	V
Continuous Collector Current	Ι <sub>C</sub>	200	mA
Power Dissipation	PD	625	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C

#### ELECTRICAL CHARACTERISTICS: (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL I <sub>CBO</sub>	TEST CONDITIONS	MIN	<b>MAX</b> 100	UNITS nA
IEBO	V <sub>EB</sub> =6.0V		100	nA
BVCEO	I <sub>C</sub> =1.0mA	30		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA		0.7	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA	0.5	1.0	V
NF	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100μA, R <sub>G</sub> =5.0KΩ,			
	BW=15.7kHz (2N4058 only)		5.0	dB

		<u>2N</u> 4	40 <u>58</u>	2N4	40 <u>59</u>	<u>2N</u> 4	<u>4060</u>	2N4	<u>4061</u>	<u>2N</u> 4	406 <u>2</u>
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
h <sub>FF</sub>	V <sub>CF</sub> =5.0V, I <sub>C</sub> =100μA	100	400	-	-	-	-	-	-	-	-
hFE	$V_{CE}^{-}=5.0V, I_{C}^{-}=1.0mA$	-	-	45	660	45	165	90	330	180	660
h <sub>fe</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100µA, f=1.0kHz	100	550	-	-	-	-	-	-	-	-
h <sub>fe</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA, f=1.0kHz	-	-	45	800	45	250	90	450	180	800

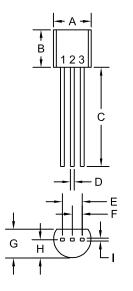
R1 (13-March 2014)

2N4058 2N4061 2N4059 2N4062 2N4060



SILICON PNP TRANSISTORS

## **TO-92 CASE - MECHANICAL OUTLINE**



DIMENSIONS					
INCHES		MILLIMETER			
MIN	MAX	MIN	MAX		
0.175	0.205	4.45	5.21		
0.170	0.210	4.32	5.33		
0.500	-	12.70	-		
0.016	0.022	0.41	0.56		
0.100		2.54			
0.050		1.27			
0.125	0.165	3.18	4.19		
0.080	0.105	2.03	2.67		
0.015		0.38			
	INC MIN 0.175 0.170 0.500 0.016 0.1 0.125 0.080	INCHES   MIN MAX   0.175 0.205   0.170 0.210   0.500 -   0.016 0.022   0.10 .   0.125 0.165   0.080 0.105	INCHES MILLIM   MIN MAX MIN   0.175 0.205 4.45   0.170 0.210 4.32   0.500 - 12.70   0.016 0.022 0.41   0.100 2.3   0.050 1.1   0.125 0.165 3.18   0.080 0.105 2.03		

TO-92 (REV: R1)

LEAD CODE:

1) Emitter

2) Collector 3) Base

R1

MARKING:

FULL PART NUMBER

www.centralsemi.com

R1 (13-March 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

#### DESIGNER SUPPORT/SERVICES

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

- Free guick 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

· Custom product packing

Custom bar coding for shipments

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits
- · Custom product and package development

#### REQUESTING PRODUCT PLATING

- If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when 1. 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.centralsemi.com

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: www.centralsemi.com/terms



# **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Central Semiconductor: 2N4058