

2N5172 NPN
2N6076 PNP

**COMPLEMENTARY
SILICON TRANSISTORS**



TO-92 CASE



www.centra-semi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N5172 and 2N6076 are complementary silicon small signal transistors designed for general purpose applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature

SYMBOL

V_{CB0} 25
 V_{CEO} 25
 V_{EBO} 5.0
 I_C 100
 P_D 625
 T_J, T_{stg} -65 to +150

UNITS

V
V
V
mA
mW
 $^\circ\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=25\text{V}$			100	nA
I_{CBO}	$V_{CB}=25\text{V}, T_A=100^\circ\text{C}$			10	μA
I_{CES}	$V_{CE}=25\text{V}$			100	nA
I_{EBO}	$V_{EB}=5.0\text{V}$ (2N5172)			100	nA
I_{EBO}	$V_{EB}=3.0\text{V}$ (2N6076)			100	nA
BV_{CEO}	$I_C=10\text{mA}$	25			V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$			0.25	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$			0.80	V
$V_{BE(ON)}$	$V_{CE}=10\text{V}, I_C=10\text{mA}$	0.5		1.2	V
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	100		500	
h_{fe}	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=1.0\text{kHz}$	100		750	
f_T	$V_{CB}=5.0\text{V}, I_C=2.0\text{mA}$		200		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$	1.0		13	pF

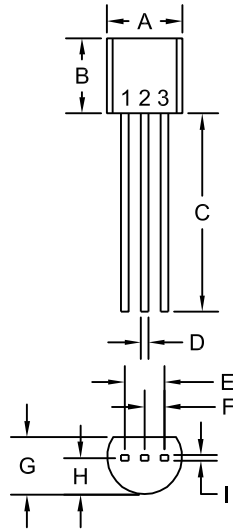
R1 (7-February 2014)

2N5172 NPN
2N6076 PNP

COMPLEMENTARY
SILICON TRANSISTORS



TO-92 CASE - MECHANICAL OUTLINE



R1

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

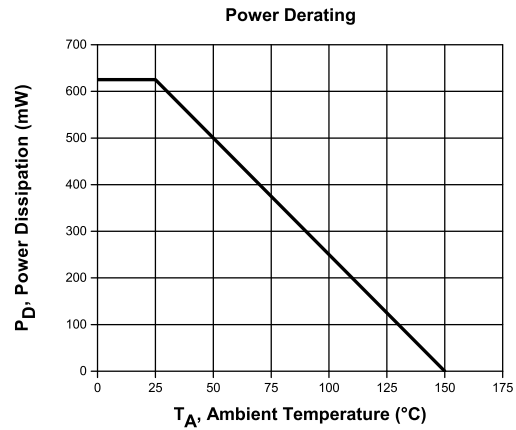
TO-92 (REV: R1)

LEAD CODE:

- 1) Emitter
- 2) Collector
- 3) Base

MARKING:

FULL PART NUMBER



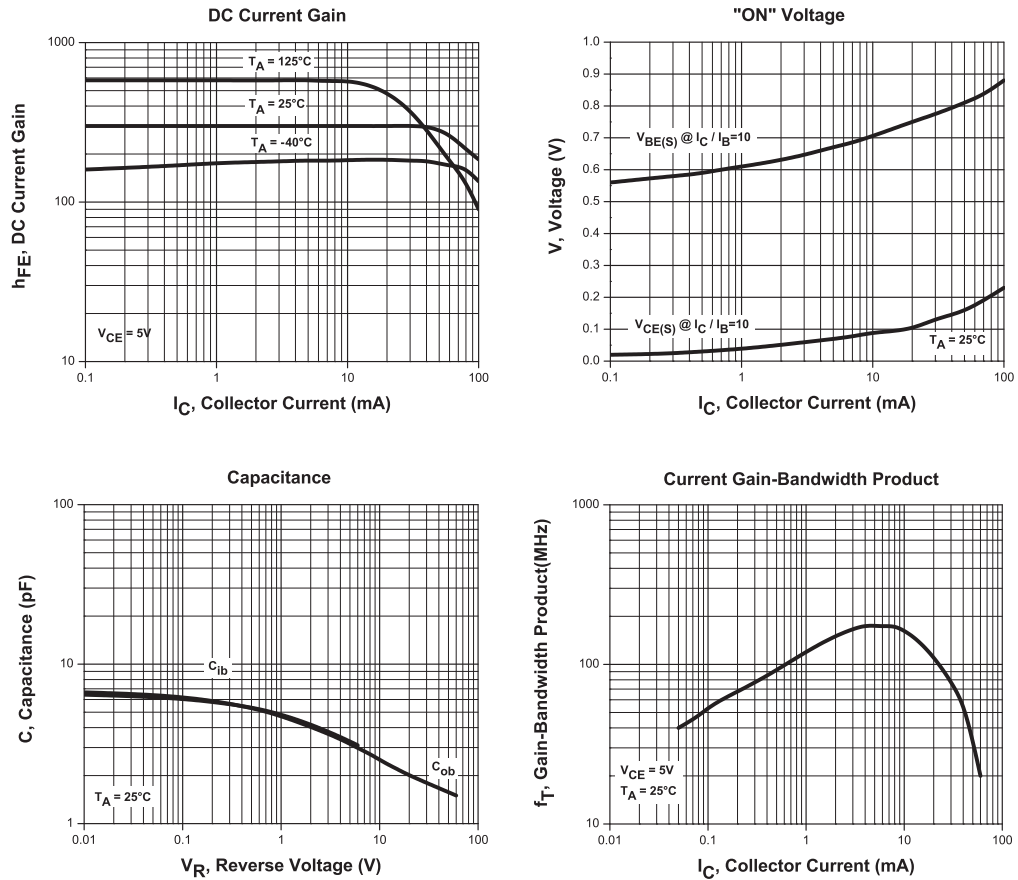
R1 (7-February 2014)

2N5172 NPN
2N6076 PNP

COMPLEMENTARY
SILICON TRANSISTORS



NPN TYPICAL ELECTRICAL CHARACTERISTICS



R1 (7-February 2014)

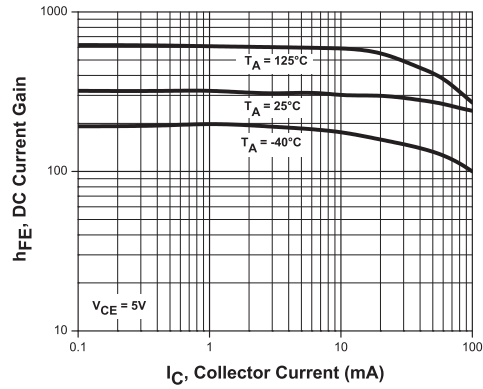
2N5172 NPN
2N6076 PNP

COMPLEMENTARY
SILICON TRANSISTORS

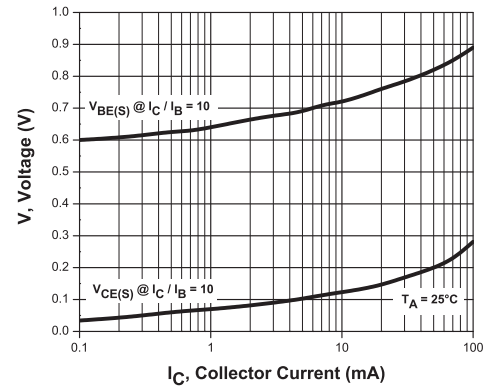


PNP TYPICAL ELECTRICAL CHARACTERISTICS

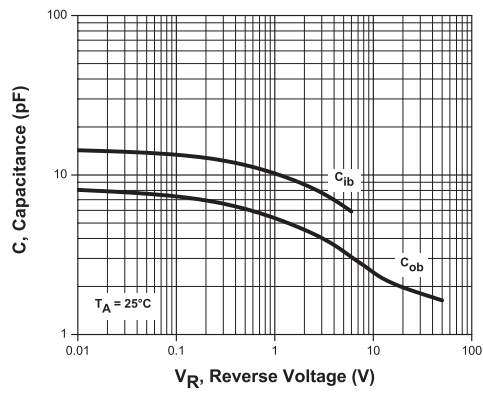
DC Current Gain



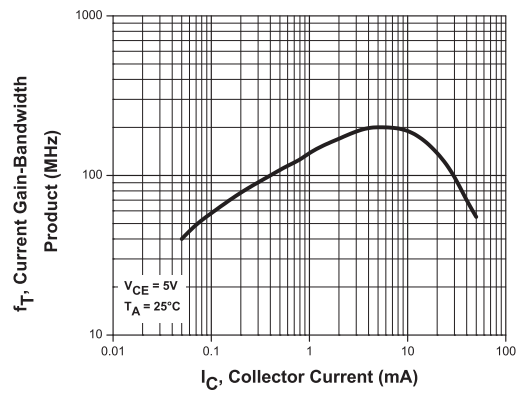
"ON" Voltage



Capacitance



Current Gain-Bandwidth Product



R1 (7-February 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 (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

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

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
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