

2N5172 NPN
2N6076 PNP

**COMPLEMENTARY
SILICON TRANSISTORS**



TO-92 CASE



www.centrasemi.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_{CBO} 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

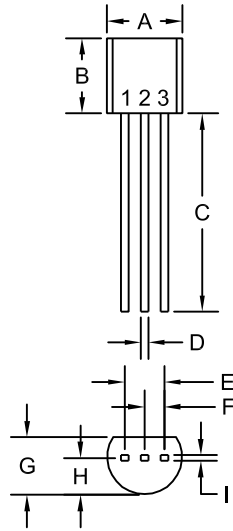
R1 (7-February 2014)

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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	

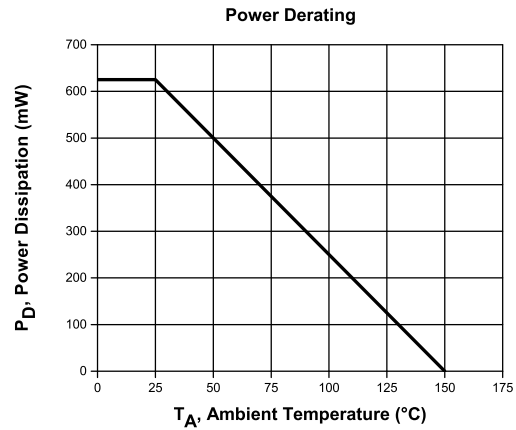
TO-92 (REV: R1)

LEAD CODE:

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

MARKING:

FULL PART NUMBER



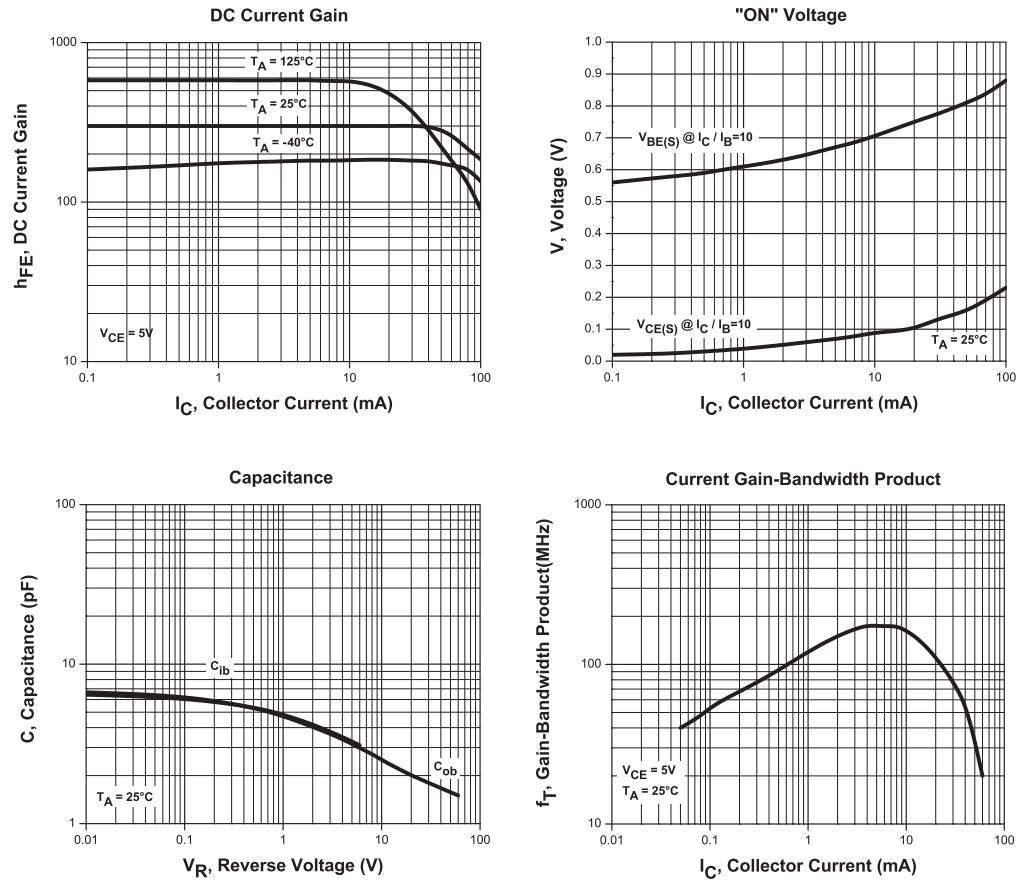
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NPN TYPICAL ELECTRICAL CHARACTERISTICS



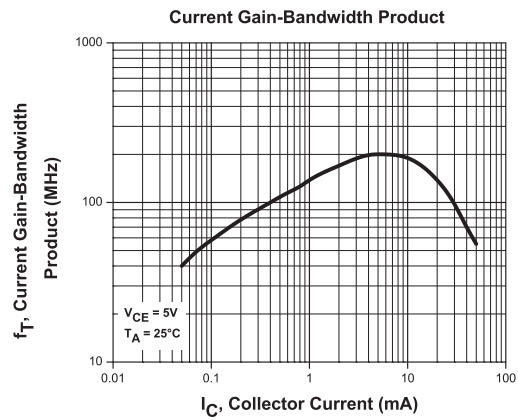
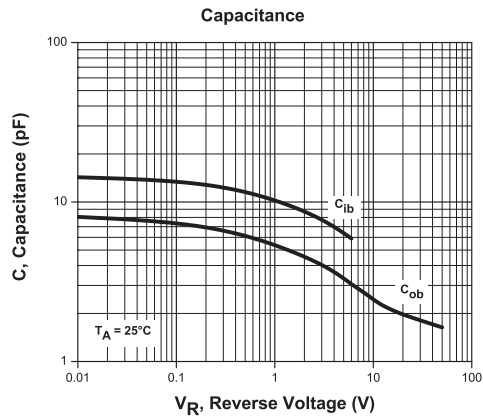
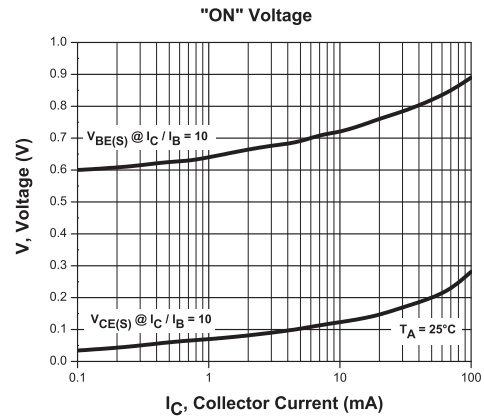
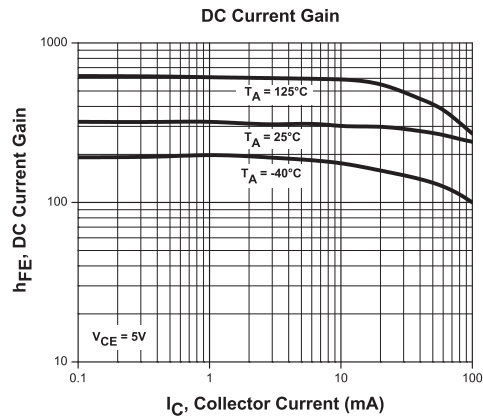
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PNP TYPICAL ELECTRICAL CHARACTERISTICS



R1 (7-February 2014)

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692
Email amall@ameya360.com
QQ 800077892
Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333
Email mkt@ameya360.com