

PN5138

PNP SILICON TRANSISTOR



TO-92 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR PN5138 is a small signal PNP silicon transistor designed for general purpose amplifier 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
 Thermal Resistance

SYMBOL		UNITS
V_{CB0}	30	V
V_{CEO}	30	V
V_{EBO}	5.0	V
I_C	500	mA
P_D	625	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	200	$^\circ\text{C/W}$

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

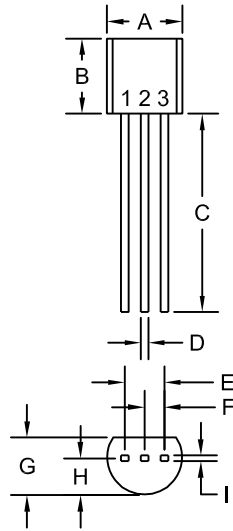
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=20\text{V}$		50	nA
I_{CBO}	$V_{CB}=20\text{V}, T_A=65^\circ\text{C}$		3.0	μA
BV_{CBO}	$I_C=100\mu\text{A}$	30		V
BV_{CEO}	$I_C=10\text{mA}$	30		V
BV_{EBO}	$I_E=100\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$		0.3	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$		1.0	V
$V_{BE(ON)}$	$V_{CE}=10\text{V}, I_C=10\text{mA}$		1.0	V
h_{FE}	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	50	800	
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	50		
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	50		
C_{ob}	$V_{CB}=5.0\text{V}, f=1.0\text{MHz}$		7.0	pF
C_{ib}	$V_{EB}=0.5\text{V}, f=1.0\text{MHz}$		30	pF
h_{fe}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	40	1000	
h_{fe}	$V_{CE}=5.0\text{V}, I_C=0.5\text{mA}, f=20\text{MHz}$	1.5		

R0 (27-June 2011)

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TO-92 CASE - MECHANICAL OUTLINE



R1

SYMBOL	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) Base
- 3) Collector

**MARKING:
FULL PART NUMBER**

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