

2N3637

PNP SILICON TRANSISTOR



TO-39 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3637 is a PNP Silicon Transistor, mounted in a hermetically sealed TO-39 package, designed for general purpose amplifier and high voltage switching 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
Power Dissipation ($T_C=25^{\circ}\text{C}$)
Operating and Storage Junction Temperature
Thermal Resistance
Thermal Resistance

SYMBOL

V_{CBO}	175
V_{CEO}	175
V_{EBO}	5.0
I_C	1.0
P_D	1.0
P_D	5.0
T_J, T_{stg}	-65 to +200
θ_{JA}	175
θ_{JC}	35

UNITS

V
V
V
A
W
W
$^{\circ}\text{C}$
$^{\circ}\text{C/W}$
$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=100\text{V}$		100	nA
I_{EBO}	$V_{EB}=3.0\text{V}$		50	nA
BV_{CBO}	$I_C=100\mu\text{A}$	175		V
BV_{CEO}	$I_C=10\text{mA}$	175		V
BV_{EBO}	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.3	V
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		0.5	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.8	V
$V_{BE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$	0.65	0.9	V
h_{FE}	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	80		
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	90		
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	100		
h_{FE}	$V_{CE}=10\text{V}, I_C=50\text{mA}$	100	300	
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$	50		
f_T	$V_{CE}=30\text{V}, I_C=30\text{mA}, f=100\text{MHz}$	200		MHz
C_{ob}	$V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$		10	pF
C_{ib}	$V_{EB}=1.0\text{V}, I_C=0, f=1.0\text{MHz}$		75	pF
t_{on}	$V_{CC}=100\text{V}, V_{BE}=4.0\text{V}, I_C=50\text{mA}, I_{B1}=I_{B2}=5.0\text{mA}$		400	ns
t_{off}	$V_{CC}=100\text{V}, V_{BE}=4.0\text{V}, I_C=50\text{mA}, I_{B1}=I_{B2}=5.0\text{mA}$		600	ns

R0 (22-November 2010)

2N3637

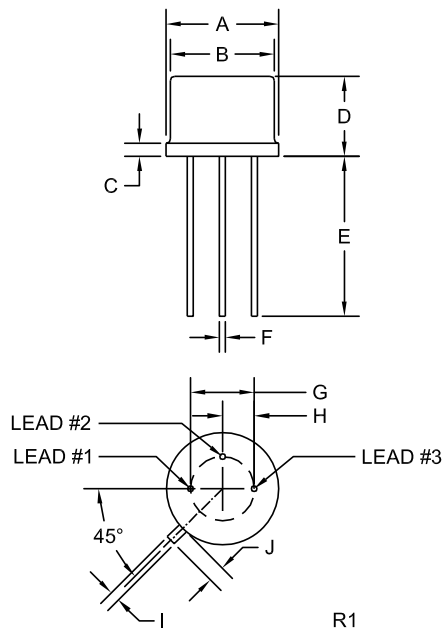
PNP SILICON TRANSISTOR



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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
h_{ie}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$, $f=1.0\text{kHz}$	200	1200	Ω
h_{re}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$, $f=1.0\text{kHz}$		3.0	$\times 10^{-4}$
h_{fe}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$, $f=1.0\text{kHz}$	80	320	
h_{oe}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$, $f=1.0\text{kHz}$		200	μS
NF	$V_{CE}=10\text{V}$, $I_C=0.5\text{mA}$, $f=1.0\text{kHz}$, $R_S=1.0\text{k}\Omega$		3.0	dB

TO-39 CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.315	0.335	8.00	8.51
C	-	0.040	-	1.02
D	0.240	0.260	6.10	6.60
E	0.500	-	12.70	-
F (DIA)	0.016	0.021	0.41	0.53
G (DIA)	0.200		5.08	
H	0.100		2.54	
I	0.028	0.034	0.71	0.86
J	0.029	0.045	0.74	1.14

TO-39 (REV: R1)

LEAD CODE:

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

MARKING: FULL PART NUMBER

R0 (22-November 2010)

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).

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