

2N3634  
2N3635

**SILICON  
PNP TRANSISTORS**



**TO-39 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N3634 and 2N3635 are silicon PNP epitaxial planar transistors designed for general purpose switching and 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	
Power Dissipation ( $T_C=25^\circ\text{C}$ )	
Operating and Storage Junction Temperature	
Thermal Resistance	
Thermal Resistance	

SYMBOL		UNITS
$V_{CBO}$	140	V
$V_{CEO}$	140	V
$V_{EBO}$	5.0	V
$I_C$	1.0	A
$P_D$	1.0	W
$P_D$	5.0	W
$T_J, T_{stg}$	-65 to +200	$^\circ\text{C}$
$\theta_{JA}$	175	$^\circ\text{C/W}$
$\theta_{JC}$	35	$^\circ\text{C/W}$

**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
$BV_{CBO}$	$I_C=100\mu\text{A}$	140		V
$BV_{CEO}$	$I_C=10\text{mA}$	140		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
$f_T$	$V_{CE}=30\text{V}, I_C=30\text{mA}, f=100\text{MHz}$ (2N3634)	150		MHz
$f_T$	$V_{CE}=30\text{V}, I_C=30\text{mA}, f=100\text{MHz}$ (2N3635)	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
NF	$V_{CE}=10\text{V}, I_C=0.5\text{mA}, R_S=1.0\text{k}\Omega, f=1.0\text{kHz}$		3.0	dB
$t_{on}$	$[V_{CC}=100\text{V}, V_{BE}=4.0\text{V}, I_C=50\text{mA}]$ $[I_{B1}=I_{B2}=5.0\text{mA}]$		400	ns
$t_{off}$			600	ns

R1 (17-September 2013)

2N3634  
2N3635

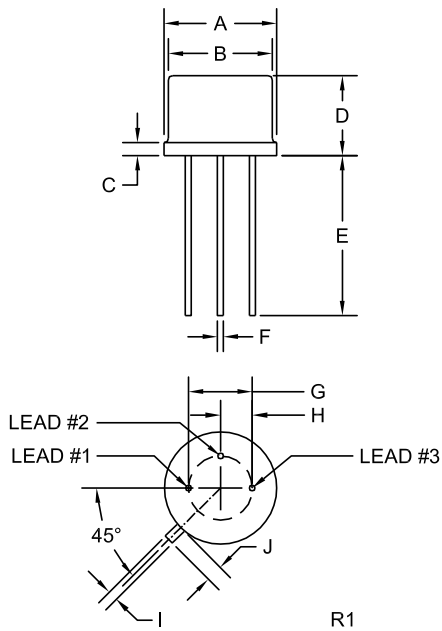
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N3634		2N3635	
		MIN	MAX	MIN	MAX
$h_{FE}$	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	40	-	80	-
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	45	-	90	-
$h_{FE}$	$V_{CE}=10\text{V}, I_C=10\text{mA}$	50	-	100	-
$h_{FE}$	$V_{CE}=10\text{V}, I_C=50\text{mA}$	50	150	100	300
$h_{FE}$	$V_{CE}=10\text{V}, I_C=150\text{mA}$	25	-	50	-
$h_{fe}$	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=1.0\text{kHz}$	40	160	80	320

**TO-39 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	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**

R1 (17-September 2013)