

2N4234  
2N4235  
2N4236

**SILICON  
PNP TRANSISTORS**



**TO-39 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N4234, 2N4235, and 2N4236 are silicon PNP transistors mounted in a hermetically sealed metal case, designed for power amplifier, power driver, and switching power supply applications.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

	<b>SYMBOL</b>	<b>2N4234</b>	<b>2N4235</b>	<b>2N4236</b>	<b>UNITS</b>
Collector-Base Voltage	$V_{CBO}$	40	60	80	V
Collector-Emitter Voltage	$V_{CEO}$	40	60	80	V
Emitter-Base Voltage	$V_{EBO}$		7.0		V
Continuous Collector Current	$I_C$		1.0		A
Peak Collector Current	$I_{CM}$		3.0		A
Continuous Base Current	$I_B$		0.2		A
Power Dissipation	$P_D$		6.0		W
Power Dissipation ( $T_A=25^\circ\text{C}$ )	$P_D$		1.0		W
Operating and Storage Junction Temperature	$T_J, T_{stg}$		-65 to +200		$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$		29		$^\circ\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$I_{CBO}$	$V_{CB}=\text{Rated } V_{CBO}$		100	$\mu\text{A}$
$I_{CEX}$	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V}$		100	$\mu\text{A}$
$I_{CEX}$	$V_{CE}=30\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (2N4234)		1.0	mA
$I_{CEX}$	$V_{CE}=40\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (2N4235)		1.0	mA
$I_{CEX}$	$V_{CE}=60\text{V}, V_{BE}=1.5\text{V}, T_C=150^\circ\text{C}$ (2N4236)		1.0	mA
$I_{CEO}$	$V_{CE}=30\text{V}$ (2N4234)		1.0	mA
$I_{CEO}$	$V_{CE}=40\text{V}$ (2N4235)		1.0	mA
$I_{CEO}$	$V_{CE}=60\text{V}$ (2N4236)		1.0	mA
$I_{EBO}$	$V_{EB}=7.0\text{V}$		500	$\mu\text{A}$
$BV_{CEO}$	$I_C=100\text{mA}$ (2N4234)	40		V
$BV_{CEO}$	$I_C=100\text{mA}$ (2N4235)	60		V
$BV_{CEO}$	$I_C=100\text{mA}$ (2N4236)	80		V
$V_{CE(\text{SAT})}$	$I_C=1.0\text{A}, I_B=125\text{mA}$		0.6	V
$V_{BE(\text{SAT})}$	$I_C=1.0\text{A}, I_B=100\text{mA}$		1.5	V
$V_{BE(\text{ON})}$	$V_{CE}=1.0\text{V}, I_C=250\text{mA}$		1.0	V

R1 (12-May 2017)

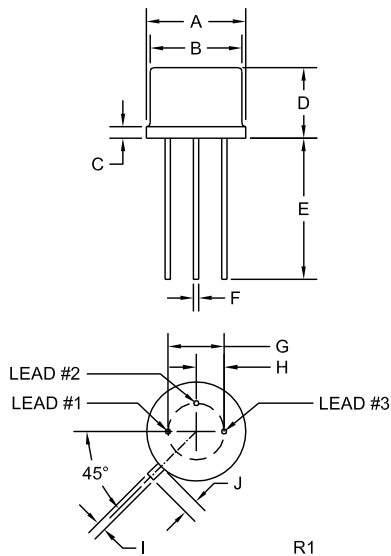
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=100\text{mA}$	40		
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=250\text{mA}$	30	175	
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=500\text{mA}$	20		
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$	10		
$h_{fe}$	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=1.0\text{kHz}$	25		
$f_T$	$V_{CE}=10\text{V}, I_C=100\text{mA}, f=1.0\text{MHz}$	3.0		MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$		100	pF

**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 (12-May 2017)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> 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

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### 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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### CONTACT US

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