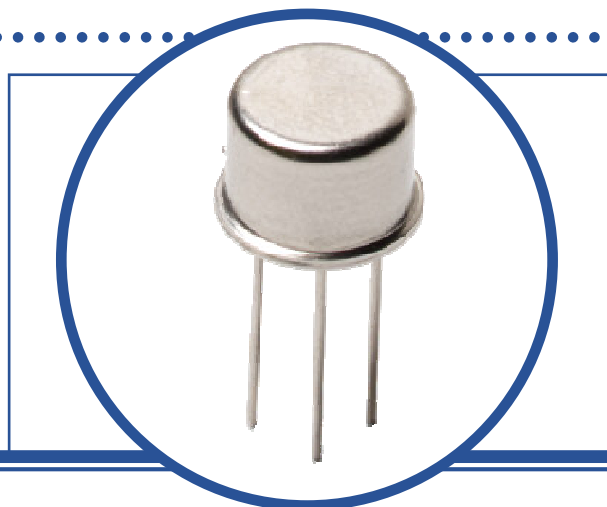


SILICON PLANAR EPITAXIAL PNP TRANSISTOR

2N4236

- $V_{CBO}=80V(\text{Min})$, $V_{CEO}=80V(\text{Min})$
- Hermetic TO-39 Metal package.
- Ideally suited for General Purpose and Amplifier Applications
- Screening Options Available



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	80V
V_{CEO}	Collector – Emitter Voltage	80V
V_{EBO}	Emitter – Base Voltage	7V
I_C	Continuous Collector Current	1.0A
I_B	Base Current	0.5A
P_D	Total Power Dissipation at $T_A = 25^\circ\text{C}$	1.0W
	Derate Above 25°C	5.7mW/ $^\circ\text{C}$
P_D	Total Power Dissipation at $T_C = 25^\circ\text{C}$	6W
	Derate Above 25°C	34mW/ $^\circ\text{C}$
T_J	Junction Temperature Range	-65 to +200 $^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65 to +200 $^\circ\text{C}$

THERMAL PROPERTIES

Symbols	Parameters	Max.	Units
$R_{\theta JA}$	Thermal Resistance, Junction To Ambient	175	$^\circ\text{C/W}$
$R_{\theta JC}$	Thermal Resistance, Junction To Case	29	

Semelab Limited reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

SILICON PLANAR EPITAXIAL PNP TRANSISTOR 2N4236

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

Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
$V_{(BR)CEO}^{(1)}$	Collector-Emitter Breakdown Voltage	$I_C = 100\text{mA}$	80			V
I_{CEX}	Collector Emitter Cut-Off Current	$V_{CE} = 60\text{V}$ $V_{BE} = 1.5\text{V}$			100	nA
		$T_A = 150^\circ\text{C}$			1.0	mA
I_{CBO}	Collector Base Cut-Off Current	$V_{CB} = 80\text{V}$			100	nA
I_{CEO}	Collector Emitter Cut-Off Current	$V_{CB} = 60\text{V}$			1.0	mA
I_{EBO}	Emitter to Base Cut-off Current	$V_{BE} = 7\text{V}$			0.5	
$h_{FE}^{(1)}$	Forward-current transfer ratio	$I_C = 100\text{mA}$ $V_{CE} = 1.0\text{V}$	40			-
		$I_C = 250\text{mA}$ $V_{CE} = 1.0\text{V}$	30		150	
		$T_A = -55^\circ\text{C}$	15			
		$I_C = 500\text{mA}$ $V_{CE} = 1.0\text{V}$	20			
$V_{CE(sat)}^{(1)}$	Collector-Emitter Saturation Voltage	$I_C = 1.0\text{A}$ $I_B = 100\text{mA}$			0.6	V
		$I_C = 500\text{mA}$ $I_B = 50\text{mA}$			0.4	
$V_{BE(sat)}^{(1)}$	Base-Emitter Saturation Voltage	$I_C = 500\text{mA}$ $I_B = 50\text{mA}$			1.1	
		$I_C = 1.0\text{A}$ $I_B = 100\text{mA}$			1.5	

DYNAMIC CHARACTERISTICS

$ h_{FE} $	Magnitude of small-signal short-circuit forward-current transfer ratio	$I_C = 100\text{mA}$ $V_{CE} = 10\text{V}$ $f = 1.0\text{MHz}$	3			-
C_{obo}	Open Circuit Output Capacitance	$V_{CB} = 10\text{V}$ $I_E = 0$ $f = 1.0\text{MHz}$			100	pF

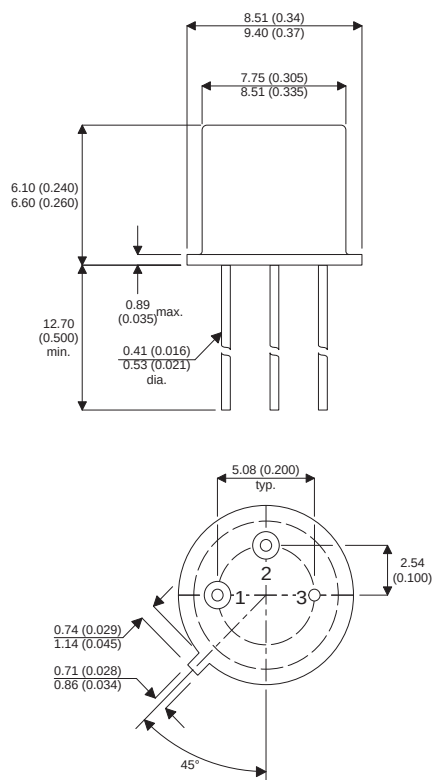
Notes

(1) Pulse Width $\leq 300\mu\text{s}$, $\delta \leq 2\%$

SILICON PLANAR EPITAXIAL PNP TRANSISTOR 2N4236

MECHANICAL DATA

Dimensions in mm (inches)



TO-39 (TO-205AD) METAL PACKAGE Underside View

Pin 1 - Emitter

Pin 2 - Base

Pin 3 - Collector