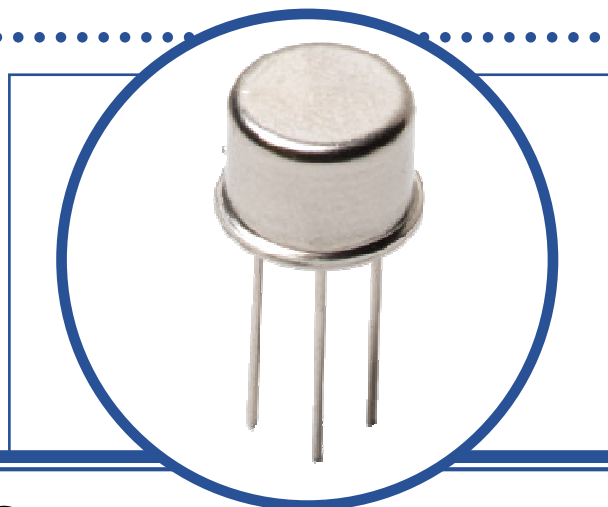


SILICON PLANAR PNP TRANSISTOR

2N1132

- High Speed Switching
- Hermetic TO-39 Metal package.
- Ideally suited for Small Signal General Purpose and Switching Applications
- Screening Options Available



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

V_{CBO}	Collector – Base Voltage	-50V
V_{CEO}	Collector – Emitter Voltage	-40V
V_{EBO}	Emitter – Base Voltage	-5V
I_C	Continuous Collector Current	-600mA
P_D	Total Power Dissipation at $T_A = 25^\circ\text{C}$	600mW
	Derate Above 25°C	3.4mW/ $^\circ\text{C}$
P_D	Total Power Dissipation at $T_C = 25^\circ\text{C}$	2W
	Derate Above 25°C	11.4mW/ $^\circ\text{C}$
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	Min.	Typ.	Max.	Units
$R_{\theta JA}$	Thermal Resistance, Junction To Ambient			292	$^\circ\text{C/W}$
$R_{\theta JC}$	Thermal Resistance, Junction To Case			87.5	$^\circ\text{C/W}$

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 PNP TRANSISTOR 2N1132

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	$I_C = -10\text{mA}$ $I_B = 0$	-40			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -10\mu\text{A}$ $I_E = 0$	-50			
I_{CBO}	Collector Cut-Off Current	$V_{CB} = -50\text{V}$ $I_E = 0$			-10	μA
		$V_{CB} = -30\text{V}$ $I_E = 0$			-1.0	
		$T_A = 150^\circ\text{C}$			-100	
I_{EBO}	Emitter Cut-Off Current	$V_{EB} = -5\text{V}$ $I_C = 0$			-100	
I_{CER}	Collector Cut-Off Current	$V_{CE} = -50\text{V}$ $R_{BE} \leq 10\Omega$			-10	mA
$V_{CE(sat)}^{(1)}$	Collector-Emitter Saturation Voltage	$I_C = -150\text{mA}$ $I_B = -15\text{mA}$			-1.3	V
$V_{BE(sat)}^{(1)}$	Base-Emitter Saturation Voltage	$I_C = -150\text{mA}$ $I_B = -15\text{mA}$			-1.5	
$h_{FE}^{(1)}$	Forward-current transfer ratio	$I_C = -5\text{mA}$ $V_{CE} = -10\text{V}$	25			
		$I_C = -150\text{mA}$ $V_{CE} = -10\text{V}$	30		100	

DYNAMIC CHARACTERISTICS

$ h_{fe} $	Small signal forward-current transfer ratio	$I_C = -50\text{mA}$ $V_{CE} = -10\text{V}$ $f = 20\text{MHz}$	3.0		20	
C_{obo}	Output Capacitance	$V_{CB} = -10\text{V}$ $I_E = 0$ $f = 1.0\text{MHz}$			45	μF
C_{ibo}	Input Capacitance	$V_{EB} = -0.5\text{V}$ $I_C = 0$ $f = 1.0\text{MHz}$			80	
t_d	Delay Time	$I_C = -150\text{mA}$ $V_{CC} = -30\text{V}$ $I_{B1} = -I_{B2} = -15\text{mA}$			15	ns
t_r	Rise Time				25	
t_s	Storage Time				80	
t_f	Fall Time				25	

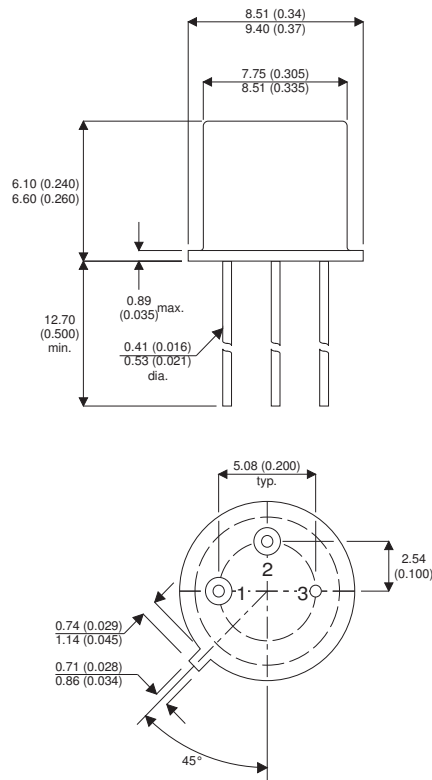
Notes

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

SILICON PLANAR PNP TRANSISTOR 2N1132

MECHANICAL DATA

Dimensions in mm (inches)



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

Pin 1 - Emitter

Pin 2 - Base

Pin 3 - Collector