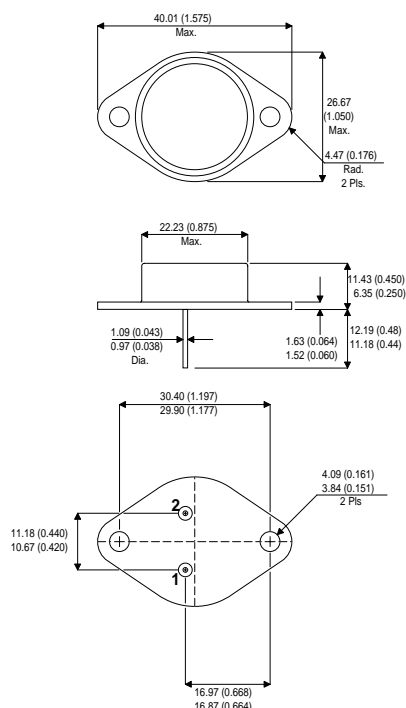


MECHANICAL DATA

Dimensions in mm(inches)



TO3 (TO-204AA)

PIN 1 — Base PIN 2 — Emitter Case is Collector.

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

V _{CBO}	Collector – Base Voltage (I _E = 0)	- 80V
V _{CEO(sus)}	Collector – Emitter Voltage (I _B = 0)	- 80V
V _{EBO}	Emitter – Base Voltage (I _C = 0)	- 7V
I _C	Collector Current	- 10A
I _B	Base Current	- 4A
P _{TOT}	Total Power Dissipation at T _{case} = 25°C	150W
T _{stg}	Storage Temperature	65 to 200°C
T _j	Junction Temperature	200°C

THERMAL CHARACTERISTICS

R _{θJC}	Thermal Resistance, Junction to Case	1.17 °C/W
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Semelab Plc 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.

PNP SILICON EPITAXIAL BASE POWER TANSISTORS

APPLICATIONS

Linear Power and Switching Applications

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{\text{CEO(sus)}}^*$ Collector - Emitter Sustaining Voltage	$I_{\text{C}} = -200\text{mA}$ $I_{\text{B}} = 0$	-80			V
$V_{\text{CE(sat)}}^*$ Collector - Emitter Saturation Voltage	$I_{\text{C}} = -5\text{A}$ $I_{\text{B}} = -0.5\text{A}$	-1			
$V_{\text{BE(on)}}^*$ Base Emitter Voltage	$I_{\text{C}} = -5\text{A}$ $V_{\text{CC}} = -2\text{V}$			-1.8	V
	$I_{\text{C}} = -10\text{A}$ $V_{\text{CC}} = -4\text{V}$			-4	
I_{EBO} Emmiter Cut-off Current	$I_{\text{C}} = 0$ $V_{\text{EB}} = 7\text{V}$			-5	mA
I_{CEX} Collector Cut-off Current	$V_{\text{BE}} = -1.5\text{V}$ $V_{\text{CE}} = -80\text{V}$ $T_{\text{c}} = 150^{\circ}\text{C}$			-1	mA
				-10	
h_{FE}^* DC Current Gain	$I_{\text{C}} = 1\text{A}$ $V_{\text{CE}} = 2\text{V}$	50		180	—
	$I_{\text{C}} = 3\text{A}$ $V_{\text{CE}} = 2\text{V}$	30			
	$I_{\text{C}} = 10\text{A}$ $V_{\text{CE}} = 4\text{V}$	5			
f_{t} Transition Frequency	$I_{\text{C}} = -0.5\text{A}$ $V_{\text{CE}} = -10\text{V}$ $f = 1\text{MHz}$	4			MHz

* Pulsed duration = 300 μs , duty cycle = 1.5%