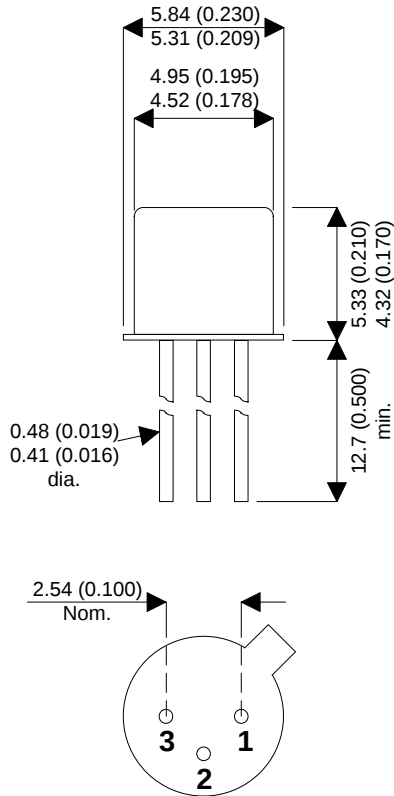


MECHANICAL DATA

Dimensions in mm (inches)



TO-18 (TO-206AA)

Pin 1 – Emitter Pin 2 – Base Pin 3 – Collector

ABSOLUTE MAXIMUM RATINGS

$T_{CASE} = 25^{\circ}C$ unless otherwise stated

V_{CBO}	Collector - Base Voltage	-20V
V_{CEO}	Collector - Emitter Voltage ($I_B = 0$)	-20V
V_{EBO}	Emitter – Base Voltage ($I_C = 0$)	-4.0V
I_C	Continuous Collector Current	-200mA
P_D	Total Power Dissipation at $T_{case} \leq 25^{\circ}C$	1.2W
	$T_{amb} \leq 25^{\circ}C$	0.36W
T_{stg}, T_J	Operating and Storage Temperature Range	-65 to +200°C

HIGH SPEED PNP SWITCHING TRANSISTOR FOR HIGH RELIABILITY APPLICATIONS

FEATURES

- SILICON PLANAR EPITAXIAL PNP TRANSISTOR
- SCREENING OPTIONS AVAILABLE
- SPACE QUALITY LEVEL OPTIONS
- HIGH SPEED SATURATED SWITCHING

APPLICATIONS

For high reliability general purpose applications requiring small size and low weight devices.

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THERMAL DATA

$R_{thj-case}$	Thermal Resistance Junction - Case	Max	146	°C/W
$R_{thj-amb}$	Thermal Resistance Junction - Ambient	Max	486	°C/W

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{(BR)CEO}^*$	Collector - Emitter Breakdown Voltage $I_C = 10\text{mA}$	-20	-	-	V
$V_{(BR)CBO}^*$	Collector - Base Breakdown Voltage $I_C = 10\mu\text{A}$	-20	-	-	
$V_{(BR)EBO}^*$	Emitter - Base Breakdown Voltage $I_C = 0$ $I_E = 10\mu\text{A}$	-4.0	-	-	
I_{CES}^*	Collector Cut-Off Current $V_{BE} = 0\text{V}$ $V_{CE} = -10\text{V}$	-	-	-80	nA
				-10	μA
$V_{CE(sat)}^*$	$I_C = -10\text{mA}$ $I_B = -1.0\text{mA}$	-	-	-0.20	V
	$I_C = -30\text{mA}$ $I_B = -3\text{mA}$	-	-	-0.25	
	$I_C = -100\text{mA}$ $I_B = -10\text{mA}$	-	-	-0.75	
$V_{BE(sat)}^*$	$I_C = -10\text{mA}$ $I_B = -1.0\text{mA}$	-0.78	-	-0.98	V
	$I_C = -30\text{mA}$ $I_B = -3\text{mA}$	-0.85	-	-1.2	
	$I_C = -100\text{mA}$ $I_B = -10\text{mA}$	-	-	-1.7	
h_{FE}^*	$I_C = -10\text{mA}$ $V_{CE} = -0.3\text{V}$	25	-	-	
	$I_C = -30\text{mA}$ $V_{CE} = -0.5\text{V}$	30	-	120	
		$T_{AMB} = -55^{\circ}\text{C}$	12	-	
	$I_C = -100\text{mA}$ $V_{CE} = -1.0\text{V}$	15	-	-	

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

f_T	Transition Frequency	$I_C = -30\text{mA}$ $V_{CE} = -10\text{V}$ $f = 100\text{MHz}$	400	-	-	MHz
C_{IBO}	Emitter - Base Capacitance	$I_C = 0$ $V_{EB} = -0.5\text{V}$ $f = 1.0\text{MHz}$	-	-	6	pF
C_{OBO}	Collector - Base Capacitance	$I_E = 0$ $V_{CB} = -5\text{V}$ $f = 1.0\text{MHz}$	-	-	5	pF
t_{on}	Turn-On Time	$V_{CC} = -2\text{V}$ $I_C = -30\text{mA}$	-	-	60	ns
t_{off}	Turn-Off Time	$I_{B1} = -1.5\text{mA}$ $I_{B2} = -I_{B1}$	-	-	90	

* Pulse test $t_p = 300\mu\text{s}$, $\delta < 2\%$

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