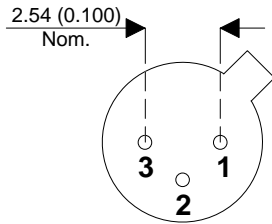
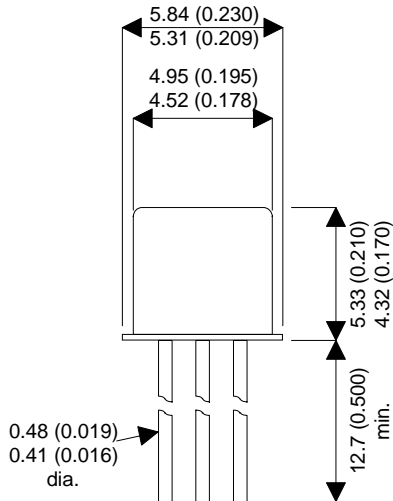


**MECHANICAL DATA**

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 $T_{case} \leq 25^{\circ}C$ $T_{amb} \leq 25^{\circ}C$	1.2W
		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** ( $T_{case}=25^{\circ}C$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{(BR)CEO}^*$	Collector - Emitter Breakdown Voltage $I_C = 10mA$	-20	-	-	V
$V_{(BR)CBO}^*$	Collector - Base Breakdown Voltage $I_C = 10\mu A$	-20	-	-	
$V_{(BR)EBO}^*$	Emitter - Base Breakdown Voltage $I_C = 0$ $I_E = 10\mu A$	-4.0	-	-	
$I_{CES}^*$	Collector Cut-Off Current $V_{BE} = 0V$ $V_{CE} = -10V$		-	-80	nA
		$T_C = 125^{\circ}C$	-	-10	$\mu A$
$V_{CE(sat)}^*$	Collector - Emitter Saturation Voltage $I_C = -10mA$ $I_B = -1.0mA$	-	-	-0.20	V
	$I_C = -30mA$ $I_B = -3mA$	-	-	-0.25	
	$I_C = -100mA$ $I_B = -10mA$	-	-	-0.75	
$V_{BE(sat)}^*$	Base - Emitter Saturation Voltage $I_C = -10mA$ $I_B = -1.0mA$	-0.78	-	-0.98	V
	$I_C = -30mA$ $I_B = -3mA$	-0.85	-	-1.2	
	$I_C = -100mA$ $I_B = -10mA$	-	-	-1.7	
$h_{FE}^*$	DC Current Gain $I_C = -10mA$ $V_{CE} = -0.3V$		25	-	-
		$I_C = -30mA$ $V_{CE} = -0.5V$	30	-	120
		$T_{AMB} = -55^{\circ}C$	12	-	-
	$I_C = -100mA$ $V_{CE} = -1.0V$	15	-	-	

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

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

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

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