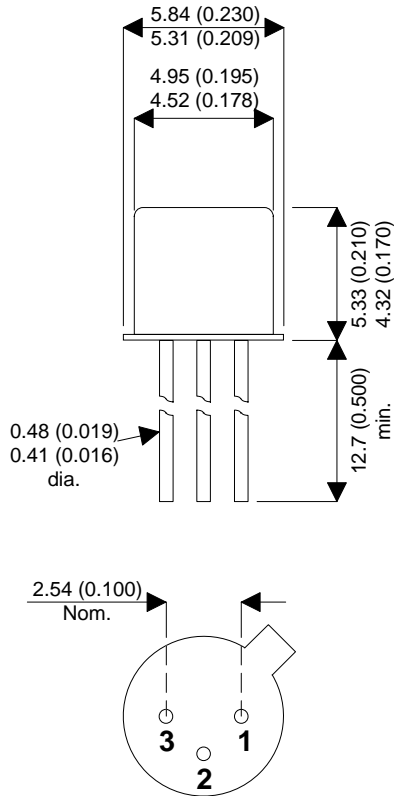


MECHANICAL DATA

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.

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.

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
				-10	μA
$V_{CE(sat)}^{*}$	$I_C = -10mA$ $I_B = -1.0mA$	-	-	-0.20	V
	$I_C = -30mA$ $I_B = -3mA$	-	-	-0.25	
	$I_C = -100mA$ $I_B = -10mA$	-	-	-0.75	
$V_{BE(sat)}^{*}$	$I_C = -10mA$ $I_B = -1.0mA$	-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}^{*}	$I_C = -10mA$ $V_{CE} = -0.3V$	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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