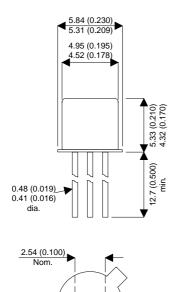




MECHANICAL DATA

Dimensions in mm (inches)



MEDIUM POWER SILICON NPN PLANAR TRANSISTOR

General Purpose Bipolar NPN Transistor in a hermetically sealed TO18 (TO-206AA) Metal Package.

 $V_{CEO} = 65V$

 $I_C = 500 \text{mA}$

 $P_{TOT} = 300 \text{mW}$

TO18 PACKAGE (TO-206AA)

Underside View

Pin 1 = Emitter Pin 2 = Base Pin 3 = Collector

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

V_{CBO}	Collector - Base Voltage	65V
V_{CEO}	Collector – Emitter Voltage	65V
V_{EBO}	Emitter – Base Voltage	5V
I _C	Collector Current	500mA
P_{TOT}	Dissipation @ T _{amb} = 25°C	300mW
	Derating linearly	2mW/°C
$R\theta_{JC}$	Thermal Resistance	500°C/W
T_{stg}, T_{j}	Storage and Operatuing Junction Temperature	–65 to 175°C

Semelab PIc 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.

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ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
V _{CEO(SUS)}	Collector – Emitter Sustaining Voltage	$I_C = 10mA$	I _B = 0	65			
V _{CE(sat)}	Collector – Emitter Saturation Voltage	I _C = 50mA	$I_B = 5mA$			0.2	V
V _{BE(sat)}	Base – Emitter Saturation Voltage	I _C = 75mA	$I_B = 3mA$			1.2	
I _{CBO}	Collector Cut-off Current	$V_{CB} = 65V$	I _E = 0			0.5	μΑ
I _{EBO}	Emitter - Base Reverse Current	$V_{EB} = 5V$	I _C = 0			0.1	μΑ
h _{FE}	DC Current Gain	$V_{CE} = 0.4V$	I _C = 1mA	35			
		$V_{CE} = 0.4V$	$I_C = 10mA$	50		200	
		$V_{CE} = 0.4V$	$I_C = 30mA$	35			
		$V_{CE} = 0.75V$	I _C = 75mA	25			
f _T	Transition Frequency	$V_{CE} = 6V$	I _C = 10mA	50			MHz
C _{ob}	Output Capacitance	V _{CE} = 6V	$I_E = 0$ f = 1MHz			20	pF

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