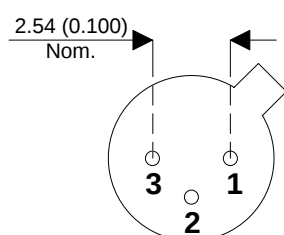
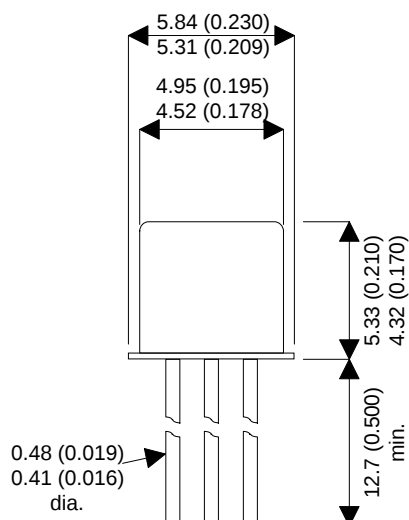


MECHANICAL DATA

Dimensions in mm (inches)



TO-18 (TO-206AA) PACKAGE

PIN 1 – Emitter PIN 2 – Base PIN 3 – Collector

HIGH VOLTAGE PNP SILICON TRANSISTOR

FEATURES

- Hermetic Metal Package
- Screening Options Available

APPLICATIONS:

All Semelab hermetically sealed products can be processed in accordance with the requirements of BS, CECC and JAN specifications

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	-300V
V_{CEO}	Collector – Emitter Voltage	-300V
V_{EBO}	Emitter – Base Voltage	-5V
I_C	Continuous Collector Current	-0.5A
P_D	Total Device Dissipation	$T_A = 25^\circ\text{C}$ Derate above 25°C
		0.5W 2.86mW/ $^\circ\text{C}$
P_D	Total Device Dissipation	$T_C = 25^\circ\text{C}$ Derate above 25°C
		2.5W 14.3mW/ $^\circ\text{C}$
T_J, T_{STG}	Operating Junction & Storage Temperature Range	-65 to 200°C
$R_{\theta JC}$	Thermal Resistance, Junction – Case	70 $^\circ\text{C/W}$

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.

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

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS							
V _{(BR)CEO}	Collector – Emitter Breakdown Voltage	I _C = -10mA	I _B = 0	-300			V
V _{(BR)CBO}	Collector – Base Breakdown Voltage	I _C = -100μA	I _E = 0	-300			
V _{(BR)EBO}	Emitter – Base Breakdown Voltage	I _E = 100μA	I _C = 0	-6			
I _{CBO}	Collector Cut-off Current	V _{CB} = -250V	I _E = 0			-50	nA
I _{CEO}	Collector Cut-off Current	V _{CE} = -300V	I _B = 0			-500	
I _{EBO}	Emitter Cut-off Current	V _{BE} = -5V	I _C = 0			-50	
ON CHARACTERISTICS							
h _{FE}	DC Current Gain	V _{CE} = -1V	I _C = -1mA	30	45		—
		V _{CE} = -10V	I _C = -10mA	35	50		
		V _{CE} = -10V	I _C = -30mA	35	55	150	
		V _{CE} = -10V	I _C = -100mA		40		
V _{CE(sat)}	Collector – Emitter Saturation Voltage	I _C = -10mA	I _B = -1mA		-0.15	-0.3	V
		I _C = -30mA	I _B = -3mA		-0.25	-0.4	
V _{BE(sat)}	Base – Emitter Saturation Voltage	I _C = -10mA	I _B = -1mA			-0.8	V
		I _C = -30mA	I _B = -3mA			-0.9	
DYNAMIC CHARACTERISTICS							
f _T	Current Gain Bandwidth Product	I _C = -20mA f = 20MHz	V _{CE} = -20V	50	110	200	MHz
C _{ob}	Output Capacitance	I _E = 0 f = 1MHz	V _{CB} = -20V		3.5		pF
C _{ib}	Input Capacitance	I _C = 0 f = 1MHz	V _{EB} = -0.5V		45		
t _{on}	Turn–On Time	I _{B1} = -10mA V _{CC} = -100V	I _C = -50mA		100		ns
t _{off}	Turn–Off Time	I _{B2} = -10mA V _{CC} = -100V	I _C = -50mA		400		

* Pulse Test: $t_p \leq 300\mu\text{s}$, $d \leq 2\%$.