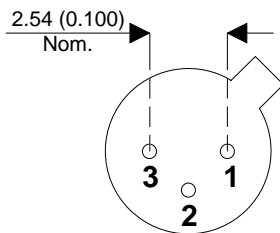
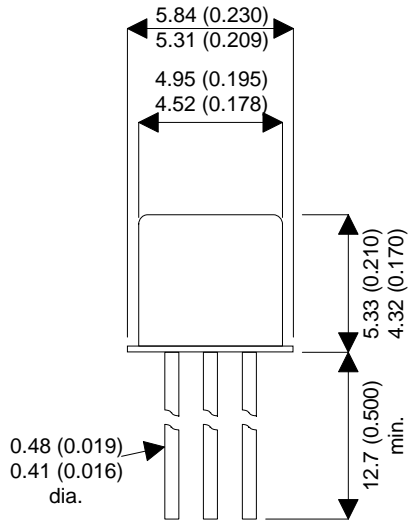


MECHANICAL DATA

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	$T_A = 25^\circ\text{C}$	0.5W
		Derate above 25°C	2.86mW/ $^\circ\text{C}$
P_D	Total Device Dissipation	$T_C = 25^\circ\text{C}$	2.5W
		Derate above 25°C	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°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	$I_C = -10\text{mA}$	$I_B = 0$	-300	V		
$V_{(BR)CBO}$	Collector – Base Breakdown Voltage	$I_C = -100\mu\text{A}$	$I_E = 0$	-300			
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage	$I_E = 100\mu\text{A}$	$I_C = 0$	-6			
I_{CBO}	Collector Cut-off Current	$V_{CB} = -250\text{V}$	$I_E = 0$		nA		
I_{CEO}	Collector Cut-off Current	$V_{CE} = -300\text{V}$	$I_B = 0$	-500			
I_{EBO}	Emitter Cut-off Current	$V_{BE} = -5\text{V}$	$I_C = 0$	-50			
ON CHARACTERISTICS							
h_{FE}	DC Current Gain	$V_{CE} = -1\text{V}$	$I_C = -1\text{mA}$	30	45	—	
		$V_{CE} = -10\text{V}$	$I_C = -10\text{mA}$	35	50		
		$V_{CE} = -10\text{V}$	$I_C = -30\text{mA}$	35	55		150
		$V_{CE} = -10\text{V}$	$I_C = -100\text{mA}$		40		
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	$I_C = -10\text{mA}$	$I_B = -1\text{mA}$		-0.15	-0.3	V
		$I_C = -30\text{mA}$	$I_B = -3\text{mA}$		-0.25	-0.4	
$V_{BE(sat)}$	Base – Emitter Saturation Voltage	$I_C = -10\text{mA}$	$I_B = -1\text{mA}$			-0.8	V
		$I_C = -30\text{mA}$	$I_B = -3\text{mA}$			-0.9	
DYNAMIC CHARACTERISTICS							
f_T	Current Gain Bandwidth Product	$I_C = -20\text{mA}$	$V_{CE} = -20\text{V}$	50	110	200	MHz
C_{ob}	Output Capacitance	$I_E = 0$	$V_{CB} = -20\text{V}$		3.5		pF
C_{ib}	Input Capacitance	$I_C = 0$	$V_{EB} = -0.5\text{V}$		45		
t_{on}	Turn-On Time	$I_{B1} = -10\text{mA}$	$I_C = -50\text{mA}$		100		ns
t_{off}	Turn-Off Time	$I_{B2} = -10\text{mA}$	$I_C = -50\text{mA}$		400		

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