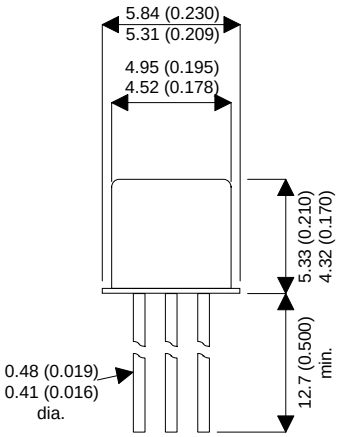
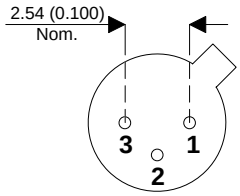
2N2894

PNP SILICON TRANSISTOR

MECHANICAL DATA
Dimensions in mm (inches)





TO18

Underside View

PIN1 – EMITER PIN 2 – BASE PIN 3 – COLLECTOR

FEATURES

- **SILICON PNP TRANSISTOR**
- **HIGH SPEED, LOW SATURATION SWITCH**

APPLICATIONS:

GENERAL PURPOSE SWITCHING APPLICATIONS

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise stated)

V_{CBO}	Collector – Base Voltage		12V
V_{CEO}	Collector – Emitter Voltage		12V
V_{EBO}	Emitter – Base Voltage		4V
I_C	Collector Current		200mA
P_D	Total Device Dissipation	@ T_A =25°C	360mW
		Derate above 25°C	2.06mW / °C
P_D	Total Device Dissipation	@ T_C =25°C	12W
		Derate above 25°C	6.85mW / °C
T_{STG} , T_J	Operating and Storage Temperature Range		–65 to +200°C

Semelab plc. Telephone +44(0)1455) 556565. Fax +44(0)1455) 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

SEME LAB

2N2894

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise stated)

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
$BV_{CEO(SUS)}$	Collector – Base BreakdownVoltage	I_C = 10mA	I_B = 0	12			V
BV_{CES}	Collector – Emitter Breakdown Voltage	I_C = 10µA	V_{BE} = 0	12			
BV_{CBO}	Collector – Base Breakdown Voltage	I_C = 10µA	I_E = 0	12			
BV_{EBO}	Emitter Base Breakdown Voltage	I_E = 100µA	I_C = 0	4			
I_{CBO}	Collector Cut-off Current	V_{CB} = 6V	T_{amb} = 125°C			10	µA
I_{CES}	Collector Cut-off Current	V_{CE} = 6V	V_{BE} = 0			80	nA
I_B	Base Current	V_{CE} = 6V	V_{BE} = 0			80	
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	I_C = 10mA	I_B = 1mA			0.15	V
		I_C = 30mA	I_B = 3mA			0.2	
		I_C = 100mA	I_B = 10mA			0.5	
$V_{BE(sat)}$	Base – Emitter On Voltage	I_C = 10mA	I_B = 1mA	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	30			—
		I_C = 30mA	V_{CE} = 0.5V	40		150	
		I_C = 30mA	V_{CE} = 0.5V T_{amb} = -55°C	17			
		I_C = –30mA	V_{CE} = –0.5V	25			
f_T	Current Gain Bandwidth Product	V_{CE} = 10V I_C = 30mA	f = 100MHz	400			MHz
C_{ob}	Output Capacitance	V_{CB} = 5V f = 140KHz	I_E = 0			6	pF
C_{ib}	Input Capacitance	V_{BE} = 0.5V f = 140KHz	I_C = 0			6	
t_{on}	Turn on Time	V_{CC} = 2V	I_C = 30mA			60	ns
t_{off}	Turn off Time	I_{B1} = – I_{B2}=1.5mA				90	

* Pulse Test: $t_p \leq 300\mu s$, $\delta \leq 1\%$.

Semelab plc. Telephone +44(0)1455) 556565. Fax +44(0)1455) 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.