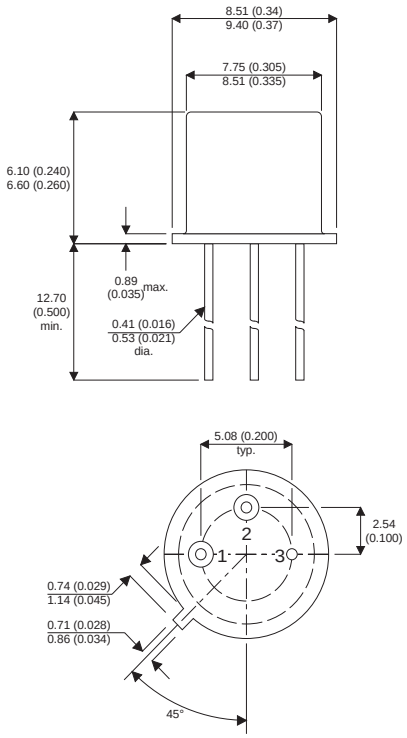
BFX29

MECHANICAL DATA
Dimensions in mm (inches)



TO39 PACKAGE

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

PNP SILICON EPITAXIAL TRANSISTOR

APPLICATIONS
- General Purpose Industrial Applications

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

V_{CBO}	Collector – Base Voltage	60V
V_{CEO}	Collector – Emitter Voltage	60V
V_{EBO}	Emitter – Base Voltage	5V
I_C	Collector Current Continuous	600mA
I_{CM}	Collector Current Peak	600mA
I_{EM}	Emitter Current Peak	600mA
P_{tot}	Total Power Dissipation T_{amb} < 25°C	600 mW
T_{stg}	Storage Temperature	–65 to 200°C
T_j	Operating Junction Temperature	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

Document Number 3083
Issue 2

SEME LAB

BFX29

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

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_{EBO}	Emitter Cut–off Current	V_{EB} = 5.0V	I_C = 0		30	500	nA
		V_{EB} = 3V	I_C = 0		1.0	100	
I_{CBO}	Collector Cut–off Current	V_{CB} =60V	I_E = 0		1.0	500	nA
		V_{CB} =50V	I_E = 0		0.5	50	
			T_j = 100°C		0.03	2.0	µA
h_{FE}	DC Current Gain	V_{CE} =10V	I_C = 0.1mA	20	90		—
		V_{CE} = 10V	I_C = 1mA	40	105		
		V_{CE} = 10V	I_C = 10mA	50	125		
		V_{CE} =10V	I_C = 50mA	50	125		
		V_{CE} = 10V	I_C = 150mA	40	90		
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	I_C = 150mA	I_B = 15mA		0.15	0.40	V
$V_{BE(sat)}$	Base – Emitter Saturation Voltage	I_C = 30mA	I_B = 1.0mA		0.77	0.90	V
		I_C = 150mA	I_B = 15mA		1.05	1.30	
C_{tc}	Collector Capactitance	V_{CB} = 10V	$I_E = I_e$ =0 f=1.0MHz		6	12	pF
C_{te}	Emitter Capactitance	V_{EB} = 2.0V	$I_C = I_c$ =0 f=1.0MHz		18	30	
f_T	Transistion Frequency	V_{CE} = 10V f=100MHz	I_C = 50mA T_{amb} = 25°C	100	360		MHz

THERMAL CHARACTERISTICS

$R_{\theta th(j\text{-}amb)}$	Thermal Resistance Junction to Ambient				292	°C/W

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

Document Number 3083
Issue 2