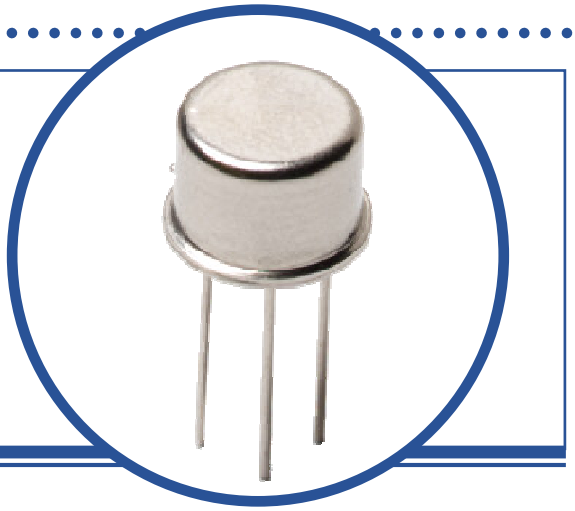
SILICON PNP TRANSISTOR

TT electronics
Semelab Limited

BFX29

- Hermetic TO-39 Metal package.
- Ideally suited for Switching and General Purpose Applications
- Screening Options Available



ABSOLUTE MAXIMUM RATINGS (T_C = 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	Continuous Collector Current		600mA
I_{CM}	Peak Collector Current		600mA
P_D	Total Power Dissipation at	TA = 25°C	600mW
		Derate Above 25°C	34mW/°C
T_J	Junction Temperature Range		-65 to +200°C
T_{stg}	Storage Temperature Range		-65 to +200°C

THERMAL PROPERTIES

Symbols	Parameters	Max.	Units
$R_{\theta JA}$	Thermal Resistance, Junction To Ambient	292	°C/W

Semelab Limited 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_J = 25°C unless otherwise stated)

Symbols	Parameters	Test Conditions		Min.	Typ	Max.	Units
I_{EBO}	Emitter Cut-Off Current	V_{EB} = 5V	I_C = 0		220	500	nA
		V_{EB} = 3V	I_C = 0		4	100	
I_{CBO}	Collector Cut-Off Current	V_{CB} = 60V	I_E = 0		1.0	500	
		V_{CB} = 50V	I_E = 0		0.5	50	
			T_j = 100°C		0.03	2	µA
$V_{CE(sat)}$ [1]	Collector-Emitter Saturation Voltage	I_C = 150mA	I_B = 15mA		0.15	0.40	V
$V_{BE(sat)}$ [1]	Base-Emitter Saturation Voltage	I_C = 30mA	I_B = 1.0mA		0.7	0.90	
		I_C = 150mA	I_B = 15mA		0.85	1.30	
h_{FE} [1]	Forward-current transfer ratio	I_C = 0.1mA	V_{CE} = 10V	20	218		-
		I_C = 1.0mA	V_{CE} = 10V	40	216		
		I_C = 10mA	V_{CE} = 10V	50	210		
		I_C = 50mA	V_{CE} = 10V	50	195		
		I_C = 150mA	V_{CE} = 10V	40	175		

DYNAMIC CHARACTERISTICS

f_T	Transition Frequency	I_C = 50mA f = 100MHz	V_{CE} = 10V T_A = 25°C	100	280		MHz
C_{obo}	Output Capacitance	V_{CB} = 10V f = 1.0MHz	I_E = 0		12	15	pF
C_{ibo}	Input Capacitance	V_{EB} = 2V f = 1.0MHz	I_C = 0		37	40	

Notes
(1) Pulse Width ≤ 380us, δ ≤ 2%

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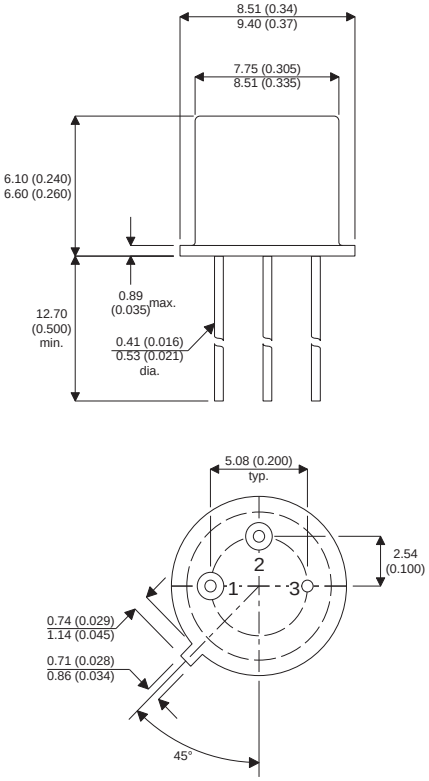
MECHANICAL DATA
Dimensions in mm (inches)



TO-39 (TO-205AD) METAL PACKAGE
Underside View

Pin 1 - Emitter Pin 2 - Base Pin 3 - Collector