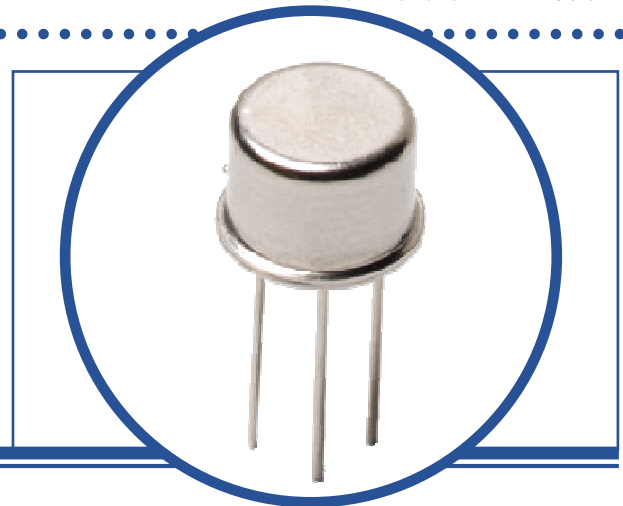


SILICON PNP TRANSISTOR

BFX29

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



ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ 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 $T_A = 25^\circ\text{C}$ Derate Above 25°C	600mW 34mW/ $^\circ\text{C}$
T_J	Junction Temperature Range	-65 to +200 $^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65 to +200 $^\circ\text{C}$

THERMAL PROPERTIES

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

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.



SILICON PNP TRANSISTOR

BFX29

ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ 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	
		$T_J = 100^\circ\text{C}$		0.03	2	μA
$V_{CE(sat)}^{(1)}$	Collector-Emitter Saturation Voltage	$I_C = 150\text{mA}$ $I_B = 15\text{mA}$		0.15	0.40	V
$V_{BE(sat)}^{(1)}$	Base-Emitter Saturation Voltage	$I_C = 30\text{mA}$ $I_B = 1.0\text{mA}$		0.7	0.90	
		$I_C = 150\text{mA}$ $I_B = 15\text{mA}$		0.85	1.30	
$h_{FE}^{(1)}$	Forward-current transfer ratio	$I_C = 0.1\text{mA}$ $V_{CE} = 10V$	20	218		-
		$I_C = 1.0\text{mA}$ $V_{CE} = 10V$	40	216		
		$I_C = 10\text{mA}$ $V_{CE} = 10V$	50	210		
		$I_C = 50\text{mA}$ $V_{CE} = 10V$	50	195		
		$I_C = 150\text{mA}$ $V_{CE} = 10V$	40	175		

DYNAMIC CHARACTERISTICS

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

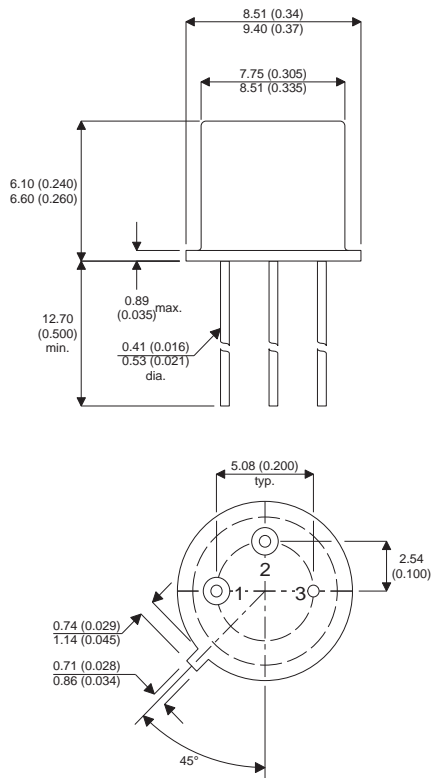
Notes

(1) Pulse Width $\leq 380\mu\text{s}$, $\delta \leq 2\%$

SILICON PNP TRANSISTOR BFX29

MECHANICAL DATA

Dimensions in mm (inches)



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

Pin 1 - Emitter

Pin 2 - Base

Pin 3 - Collector