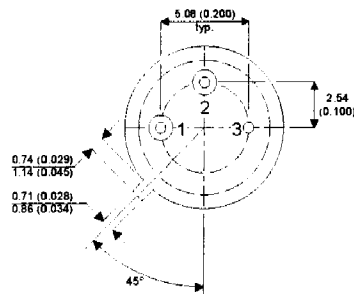
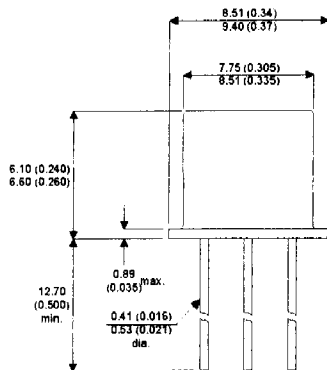


BFX29

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 ($T_{case} = 25^{\circ}C$ 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 $T_{amb} < 25^{\circ}C$	600 mW
T_{stg}	Storage Temperature	-65 to 200°C
T_j	Operating Junction Temperature	200°C

NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.



ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$ unless otherwise stated)

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

THERMAL CHARACTERISTICS

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