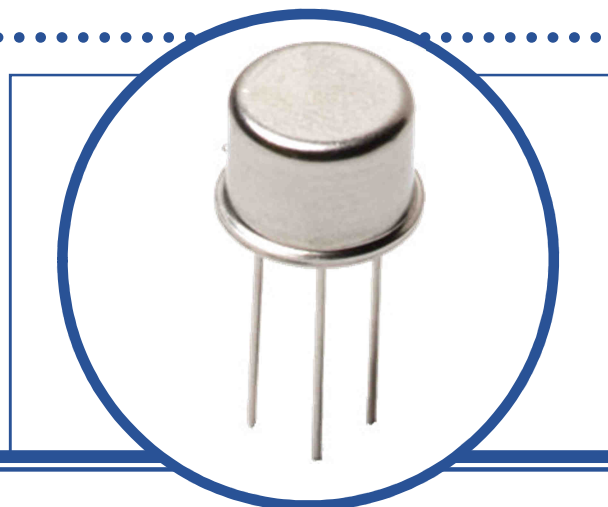


SILICON PLANAR EPITAXIAL PNP TRANSISTOR

BFX87

- Hermetic TO-39 Metal package.
- Screening Options Available



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	-50V
V_{CEO}	Collector – Emitter Voltage	-50V
V_{EBO}	Emitter – Base Voltage	-5V
I_C	Continuous Collector Current	-600mA
I_{CM}	Peak Collector Current	-600mA
I_{EM}	Peak Emitter Current	-600mA
P_D	Total Power Dissipation at $T_A = 25^\circ\text{C}$ Derate Above 25°C	0.6W 5.9mW/ $^\circ\text{C}$
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	291.6	$^\circ\text{C/W}$

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 PLANAR EPITAXIAL PNP TRANSISTOR BFX87

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

Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
I_{CBO}	Collector Cut-off current	$V_{CB} = -40\text{V}$ $I_E = 0$			-50	nA
		$V_{CB} = -50\text{V}$ $I_E = 0$			-500	
		$V_{CB} = -40\text{V}$ $I_E = 0$ $T_A = +100^\circ\text{C}$			-2	μA
I_{EBO}	Emitter Cut-Off Current	$V_{EB} = -3.0\text{V}$ $I_C = 0$			-100	nA
		$V_{EB} = -4.0\text{V}$ $I_C = 0$			-500	
$h_{FE}^{(1)}$	Forward-current transfer ratio	$V_{CE} = -10\text{V}$	$I_C = -1.0\text{mA}$	40		-
			$I_C = -10\text{mA}$	40		
			$I_C = -150\text{mA}$	40		
			$I_C = -500\text{mA}$	25		
$V_{CE(sat)}^{(1)}$	Collector-Emitter Saturation Voltage	$I_C = -150\text{mA}$ $I_B = -15\text{mA}$			-0.4	V
$V_{BE(sat)}^{(1)}$	Base-Emitter Saturation Voltage	$I_C = -30\text{mA}$ $I_B = -1.0\text{mA}$			-0.9	
		$I_C = -150\text{mA}$ $I_B = -15\text{mA}$			-1.3	

DYNAMIC CHARACTERISTICS

C_{obo}	Output Capacitance	$V_{CB} = -10\text{V}$ $I_E = 0$ $f = 1.0\text{MHz}$			12	pF
C_{ibo}	Input Capacitance	$V_{EB} = -2\text{V}$ $I_C = 0$ $f = 1.0\text{MHz}$			30	
f_T	Transition Frequency	$V_{CE} = -10\text{V}$ $I_C = -50\text{mA}$ $f = 100\text{MHz}$	100			MHz

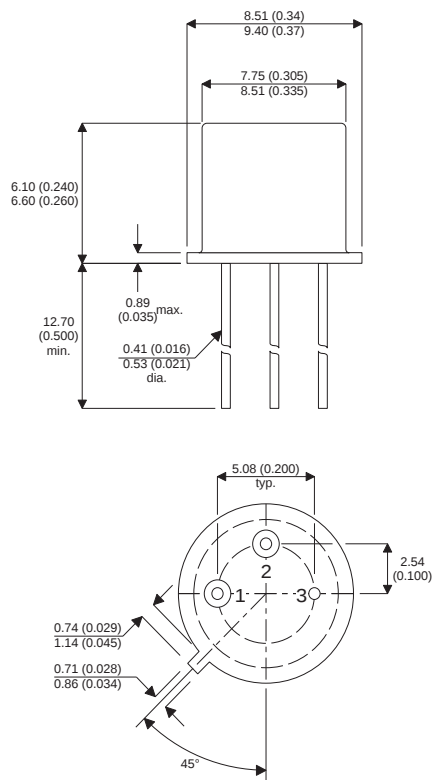
Notes

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

SILICON PLANAR EPITAXIAL PNP TRANSISTOR BFX87

MECHANICAL DATA

Dimensions in mm (inches)



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

Pin 1 - Emitter

Pin 2 - Base

Pin 3 - Collector