



BFX87 BFX88

PNP SILICON PLANAR TRANSISTORS

MICRO ELECTRONICS

The BFX87, BFX88 are PNP silicon planar epitaxial transistors designed for medium current general purpose industrial applications.

TO-39



ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage
 Collector-Emitter Voltage
 Emitter-Base Voltage
 Collector Current
 Total Power Dissipation @ $T_A \leq 25^\circ\text{C}$
 Operating Junction & Storage Temperature

	BFX87	BFX88
V_{CB0}	50V	40V
V_{CE0}	50V	40V
V_{EB0}	4V	4V
I_C		600mA
P_{tot}		600mW
T_j, T_{stg}		-65 to +200°C

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

PARAMETER	SYMBOL	BFX87		BFX88		UNIT	TEST CONDITIONS
		MIN	MAX	MIN	MAX		
Collector-Emitter Breakdown Voltage	V_{CE0}	50		40		V	$I_C = 10\text{mA}$ $I_B = 0^*$
Collector Cutoff Current	I_{CBO}	500				nA	$V_{CB} = 50\text{V}$ $I_E = 0$
				500		nA	$V_{CB} = 40\text{V}$ $I_E = 0$
		50				nA	$V_{CB} = 40\text{V}$ $I_E = 0$
				50		nA	$V_{CB} = 30\text{V}$ $I_E = 0$
Emitter Cutoff Current	I_{EBO}	500		500		nA	$V_{EB} = 4\text{V}$ $I_C = 0$
		100		100		nA	$V_{EB} = 3\text{V}$ $I_C = 0$
D.C. Current Gain	HFE	40		40			$I_C = 1\text{mA}$ $V_{CE} = 10\text{V}$
		40		40			$I_C = 10\text{mA}$ $V_{CE} = 10\text{V}$
		40		40			$I_C = 150\text{mA}$ $V_{CE} = 10\text{V}^*$
		25		25			$I_C = 500\text{mA}$ $V_{CE} = 10\text{V}^*$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	0.4		0.4		V	$I_C = 150\text{mA}$ $I_B = 15\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	0.9		0.9		V	$I_C = 30\text{mA}$ $I_B = 1\text{mA}$
		1.3		1.3		V	$I_C = 150\text{mA}$ $I_B = 15\text{mA}^*$
Output Capacitance	C_{ob}	12		12		pF	$V_{CB} = 10\text{V}$ $I_E = 0$ $f = 1\text{MHz}$
Input Capacitance	C_{ib}	30		30		pF	$V_{EB} = 2\text{V}$ $I_C = 0$ $f = 1\text{MHz}$
Current Gain-Bandwidth Product	f_T	100		100		MHz	$I_C = 50\text{mA}$ $V_{CE} = 10\text{V}$ $f = 100\text{MHz}$

* Pulse Test : Pulse Width = 300 μ S, Duty Cycle = 2%.

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