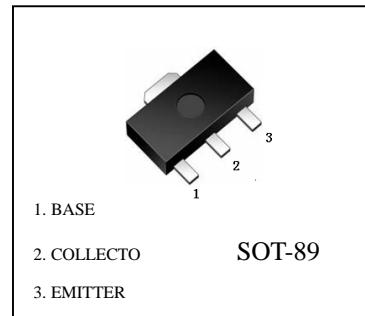


## FEATURES

- IC = -1A Continuous Collector Current
- Low Saturation Voltage VCE(sat) < -500mV @ -0.5A
- Epitaxial Planar Die Construction
- Complementary NPN types: BCX54, 55, and 56

## BCX51/52/53 (PNP)



Product	BCX51	BCX51-10	BCX51-16	BCX52	BCX52-10	BCX52-16	BCX53	BCX53-10	BCX53-16
Marking	AA	AC	AD	AE	AG	AM	AH	AK	AL

Maximum Ratings (Ta=25 °C unless otherwise noted)

Characteristic	Symbol	BCX51	BCX52	BCX53	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-45	-60	-100	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-45	-60	-80	V
Emitter-Base Voltage	V <sub>EBO</sub>		-5		V
Continuous Collector Current	I <sub>C</sub>		-1		A
Peak Pulse Collector Current	I <sub>CM</sub>		-1.5		
Continuous Base Current	I <sub>B</sub>		-100		
Peak Pulse Base Current	I <sub>BM</sub>		-200		mA
Power Dissipation (Note 1)	P <sub>D</sub>		1		W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>		-65 to +150		°C

ELECTRICAL CHARACTERISTICS ( @ Ta=25 °C unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Collector-Base Breakdown Voltage	BCX51	-45	-	-	V	I <sub>C</sub> = -100μA
	BCX52	-60				
	BCX53	-100				
Collector-Emitter Breakdown Voltage (Note 2)	BCX51	-45	-	-	V	I <sub>C</sub> = -10mA
	BCX52	-60				
	BCX53	-80				
Emitter-Base Breakdown Voltage	B <sub>V</sub> <sub>EBO</sub>	-5	-	-	V	I <sub>E</sub> = -10μA
Collector Cut-off Current	I <sub>CBO</sub>	-	-	-0.1 -20	μA	V <sub>CB</sub> = -30V V <sub>CB</sub> = -30V, T <sub>A</sub> = 150°C
Emitter Cut-off Current	I <sub>EBO</sub>	-	-	-20	nA	V <sub>EB</sub> = -4V
Static Forward Current Transfer Ratio (Note 2)	All versions	25	-	-		I <sub>C</sub> = -5mA, V <sub>CE</sub> = -2V
		40	-	250		I <sub>C</sub> = -150mA, V <sub>CE</sub> = -2V
		25	-	-		I <sub>C</sub> = -500mA, V <sub>CE</sub> = -2V
		63	-	160		I <sub>C</sub> = -150mA, V <sub>CE</sub> = -2V
		100	-	250		I <sub>C</sub> = -150mA, V <sub>CE</sub> = -2V
Collector-Emitter Saturation Voltage (Note 2)	V <sub>CE(sat)</sub>	-	-	-0.5	V	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA
Base-Emitter Turn-On Voltage (Note 2)	V <sub>BE(on)</sub>	-	-	-1.0	V	I <sub>C</sub> = -500mA, V <sub>CE</sub> = -2V
Transition Frequency	f <sub>r</sub>	150	-	-	MHz	I <sub>C</sub> = -50mA, V <sub>CE</sub> = -10V f = 100MHz
Output Capacitance	C <sub>obo</sub>	-	-	25	pF	V <sub>CB</sub> = -10V, f = 1MHz

Notes: 1. For a device surface mounted on 25 mm X 25mm FR4 PCB with high coverage of single sided 1 oz copper, in still air conditions; the device is measured when operating in a steady-state condition.

Notes: 2. Measured under pulsed conditions. Pulse width ≤ 300μs. Duty cycle ≤ 2%.

**BCX51/52/53 Typical Characteristics**
