

SOT89 PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

**BCX51
BCX52
BCX53**

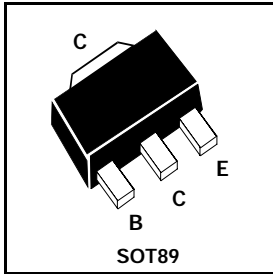
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COMPLEMENTARY TYPE – BCX51 – BCX54
BCX52 – BCX55
BCX53 – BCX56

PARTMARKING DETAILS –

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



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	BCX51	BCX52	BCX53	UNIT
Collector-Base Voltage	V_{CBO}	-45	-60	-100	V
Collector-Emitter Voltage	V_{CEO}	-45	-60	-80	V
Emitter-Base Voltage	V_{EBO}		-5		V
Peak Pulse Current	I_{CM}		-1.5		A
Continuous Collector Current	I_C		-1		A
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}		1		W
Operating and Storage Temperature Range	$T_j; T_{stg}$		-65 to +150		$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-100 -60 -45			V V V	$I_C = -100\mu\text{A}$ $I_C = -100\mu\text{A}$ $I_C = -100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-80 -60 -45			V	$I_C = -10\text{mA}^*$ $I_C = -10\text{mA}^*$ $I_C = -10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -10\mu\text{A}$
Collector Cut-Off Current	I_{CBO}			-0.1 -20	μA μA	$V_{CB} = -30\text{V}$ $V_{CB} = -30\text{V}, T_{amb} = 150^\circ\text{C}$
Emitter Cut-Off Current	I_{EBO}			-20	nA	$V_{EB} = -4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	V	$I_C = -500\text{mA}, I_B = -50\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			-1.0	V	$I_C = -500\text{mA}, V_{CE} = -2\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	25 40 25 63 100		250 160 250		$I_C = -5\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -150\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -500\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -150\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -150\text{mA}, V_{CE} = -2\text{V}^*$
Transition Frequency	f_T	150			MHz	$I_C = -50\text{mA}, V_{CE} = -10\text{V}, f = 100\text{MHz}$
Output Capacitance	C_{obo}			25	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$