

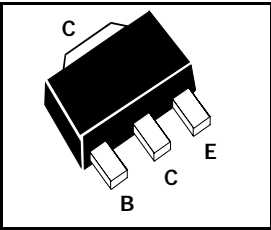
# SOT89 NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

**BCX54  
BCX55  
BCX56**

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**PARTMARKING DETAILS:-**

BCX54 – BA	BCX54-10 – BC	BCX54-16 – BD
BCX55 – BE	BCX55-10 – BG	BCX55-16 – BM
BCX56 – BH	BCX56-10 – BK	BCX56-16 – BL



**COMPLEMENTARY TYPES:-**

BCX54 – BCX51    BCX55 – BCX52    BCX56 – BCX53

**ABSOLUTE MAXIMUM RATINGS.**

PARAMETER	SYMBOL	BCX54	BCX55	BCX56	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	$I_{CM}$	2			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	BCX54 $V_{(BR)CBO}$ BCX55 BCX56	45 60 100			V	$I_C = 100\mu\text{A}$
Collector-Emitter Breakdown Voltage	BCX54 $V_{(BR)CEO}$ BCX55 BCX56	45 60 80			V	$I_C = 10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E = 10\mu\text{A}$
Collector Cut-Off Current	$I_{CBO}$			0.1 20	$\mu\text{A}$	$V_{CB} = 30\text{V}$ $V_{CB} = 30\text{V}, T_{amb} = 150^\circ\text{C}$
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 -10 -16		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	$C_{obo}$			15	pF	$V_{CB} = 10\text{V}, f = 1\text{MHz}$

\*Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$