

# SOT89 NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

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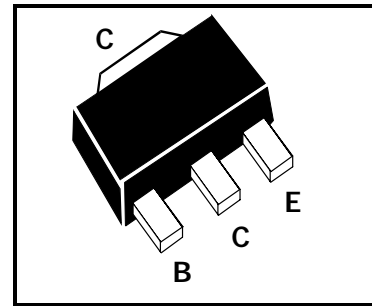
**BCX54  
BCX55  
BCX56**

## 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
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## 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 $T_{amb}=25^{\circ}C$	$P_{tot}$	1			W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-65 to +150			$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	BCX54 BCX55 BCX56 $V_{(BR)CBO}$	45 60 100			V	$I_C = 100\mu A$
Collector-Emitter Breakdown Voltage	BCX54 BCX55 BCX56 $V_{(BR)CEO}$	45 60 80			V	$I_C = 10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E = 10\mu A$
Collector Cut-Off Current	$I_{CBO}$			0.1 20	$\mu A$	$V_{CB} = 30V$ $V_{CB} = 30V, T_{amb} = 150^{\circ}C$
Emitter Cut-Off Current	$I_{EBO}$			20	nA	$V_{EB} = 4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	$I_C = 500mA, I_B = 50mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1.0	V	$I_C = 500mA, V_{CE} = 2V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	25 40 25 -10 -16		250 160 250		$I_C = 5mA, V_{CE} = 2V^*$ $I_C = 150mA, V_{CE} = 2V^*$ $I_C = 500mA, V_{CE} = 2V^*$ $I_C = 150mA, V_{CE} = 2V^*$ $I_C = 150mA, V_{CE} = 2V^*$
Transition Frequency	$f_T$	150			MHz	$I_C = 50mA, V_{CE} = 10V,$ $f = 100MHz$
Output Capacitance	$C_{obo}$			15	pF	$V_{CB} = 10V, f = 1MHz$

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