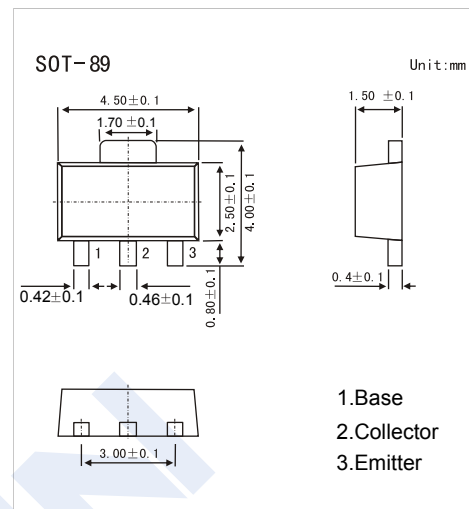


NPN Transistors

BCX54,BCX55,BCX56 (KCX54,KCX55,KCX56)

■ Features

- High current (max. 1 A).
- Low voltage (max. 80 V).



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter		Symbol	Rating	Unit
Collector-base voltage	BCX54	V_{CB0}	45	V
	BCX55		60	V
	BCX56		100	V
Collector-emitter voltage	BCX54	V_{CE0}	45	V
	BCX55		60	V
	BCX56		80	V
Emitter-base voltage		V_{EB0}	5	V
Collector current		I_C	1	A
Peak collector current		I_{CM}	1.5	A
Peak base current		I_{BM}	0.2	A
Total power dissipation		P_{tot}	1.3	W
Storage temperature		T_{stg}	-65 to +150	$^\circ\text{C}$
Junction temperature		T_j	150	$^\circ\text{C}$
Operating ambient temperature		T_{amb}	-65 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient		$R_{th(j-a)}$	94	K/W
Thermal resistance from junction to solder point		$R_{th(j-s)}$	14	K/W

BCX54,BCX55,BCX56■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 30\text{ V}, I_E = 0$			100	nA
		$V_{CB} = 30\text{ V}, I_E = 0; T_j = 125^\circ\text{C}$			10	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$			100	nA
DC current gain	h_{FE}	$I_C = 5\text{ mA}; V_{CE} = 2\text{ V}$	63			
		$I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$	63		250	
		$I_C = 500\text{ mA}; V_{CE} = 2\text{ V}$	40			
DC current gain BCX54-10,BCX55-10,BCX56-10 BCX54-16,BCX55-16,BCX56-16	h_{FE}	$I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$	63		160	
		$I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$	100		250	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{ mA}; I_B = 50\text{ mA}$			0.5	V
Base to emitter voltage	V_{BE}	$I_C = 500\text{ mA}; V_{CE} = 2\text{ V}$			1	V
Transition frequency	f_T	$I_C = 10\text{ mA}; V_{CE} = 5\text{ V}; f = 100\text{ MHz}$		130		MHz
DC current gain ratio of the complementary pairs	$\frac{h_{FE}}{h_{FE}}$	$ I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$		1.3	1.6	

■ h_{FE} Classification

TYPE	BCX54	BCX54-10	BCX54-16
Marking	BA	BC	BD

TYPE	BCX55	BCX55-10	BCX55-16
Marking	BE	BG	BM

TYPE	BCX56	BCX56-10	BCX56-16
Marking	BH	BK	BL

■ Typical Characteristics

