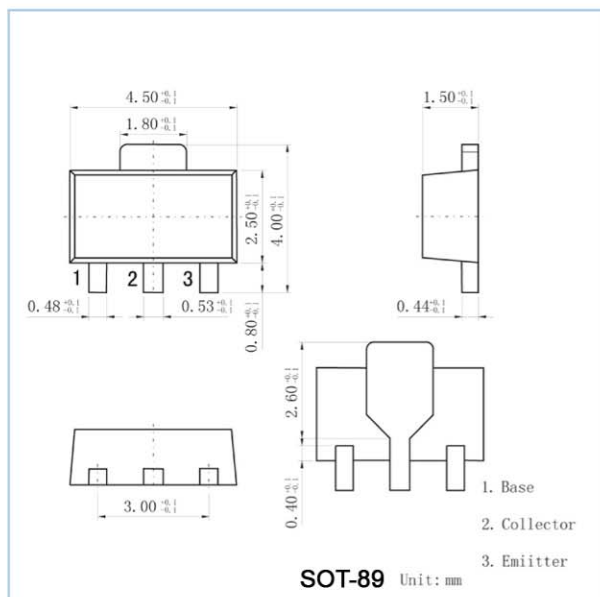


■ Features

- High current (max. 1 A).
- Low voltage (max. 45 V).



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	45	V
Collector-emitter voltage	V_{CEO}	45	V
Emitter-base voltage	V_{EBO}	5	V
Collector current (DC)	I_C	1	A
Peak collector current	I_{CM}	1.5	A
Peak base current	I_{BM}	0.2	A
Power dissipation $T_a \leq 25^\circ\text{C}$ *	P_D	1.3	W
Operating ambient temperature	R_{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
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$

* Device mounted on a printed-circuit board, single sided copper, tinplated, mounting pad for collector 6 cm^2 .

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	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	iA
Emitter cutoff current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$			100	nA
DC current gain	h_{FE}	$I_C = 5\text{ mA}; V_{CE} = 2\text{ V}$	40			
		$I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$	63		250	
		$I_C = 500\text{ mA}; V_{CE} = 2\text{ V}$	25			
DC current gain	h_{FE}	$I_C = 150\text{ mA}; V_{CE} = 2\text{ V};$	63		160	
			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
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	
Transition frequency	f_T	$I_C = 10\text{ mA}; V_{CE} = 5\text{ V}; f = 100\text{ MHz}$		130		MHz

■ h_{FE} Classification

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