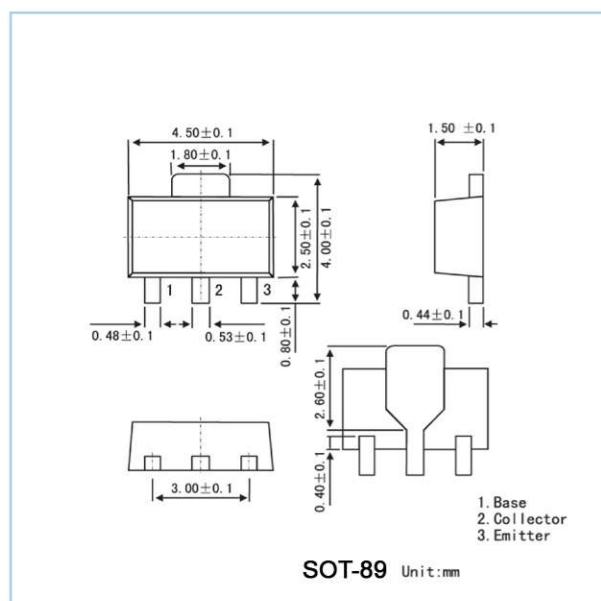


NPN Medium Power Transistors

■ Features

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



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit	
Collector-base voltage	BCX56	CBO	100	V
Collector-emitter voltage	BCX56	CEO	80	V
Emitter-base voltage	VEBO	5	V	
Collector current	IC	1	A	
Peak collector current	ICM	1.5	A	
Peak base current	IBM	0.2	A	
Total power dissipation	Ptot	1.3	W	
Storage temperature	Tstg	-65 to +150	°C	
Junction temperature	Tj	150	°C	
Operating ambient temperature	Ramb	-65 to +150	°C	
Thermal resistance from junction to ambient	Rth(j-a)	94	K/W	
Thermal resistance from junction to solder point	Rth(j-s)	14	K/W	



■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V _{CB} = 30 V, I _E = 0			100	nA
		V _{CB} = 30 V, I _E = 0; T _j = 125°C			10	μA
Emitter cutoff current	IEBO	VEB = 5 V, I _C = 0			100	nA
DC current gain	hFE	I _C = 5 mA; V _{CE} = 2 V	63			
		I _C = 150 mA; V _{CE} = 2 V	63		250	
		I _C = 500 mA; V _{CE} = 2 V	40			
DC current gain	hFE	I _C = 150 mA; V _{CE} = 2 V	63		160	
		I _C = 150 mA; V _{CE} = 2 V	100		250	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 500 mA; I _B = 50 mA			0.5	V
Base to emitter voltage	V _{BE}	I _C = 500 mA; V _{CE} = 2 V			1	V
Transition frequency	f _T	I _C = 10 mA; V _{CE} = 5 V; f = 100 MHz		130		MHz
DC current gain ratio of the complementary pairs	$\frac{h_{FE}}{h_{FE}}$	I _C = 150 mA; V _{CE} = 2V		1.3	1.6	

■ hFE Classification

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

