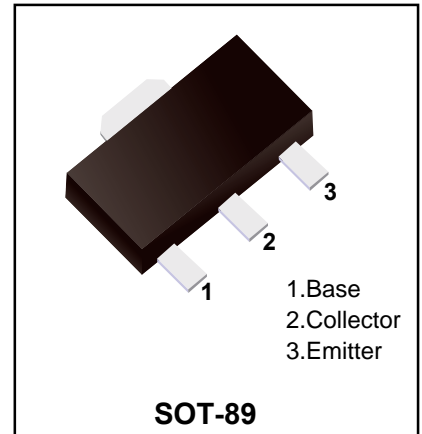


NPN Transistors

Features

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



Absolute Maximum Rating (Ta=25°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	°C
Junction temperature		T _j	150	°C
Operating ambient temperature		T _{amb}	-65 to +150	°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

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Testconditions	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	uA
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 BCX54-10,BCX55-10,BCX56-10 BCX54-16,BCX55-16,BCX56-16	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	

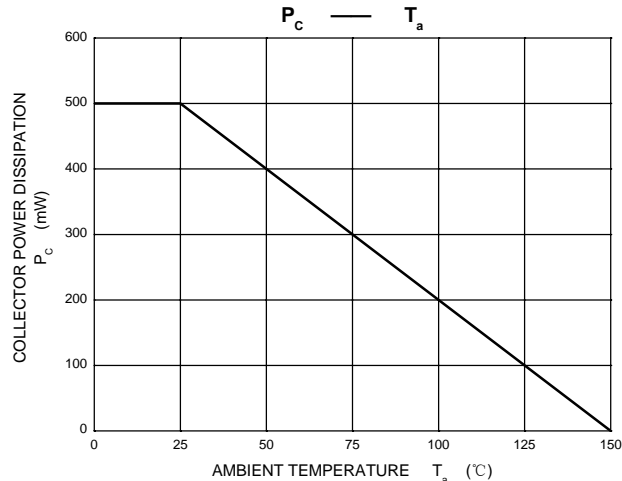
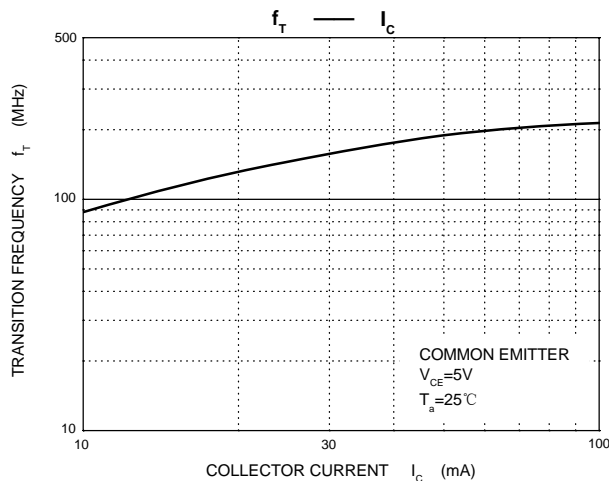
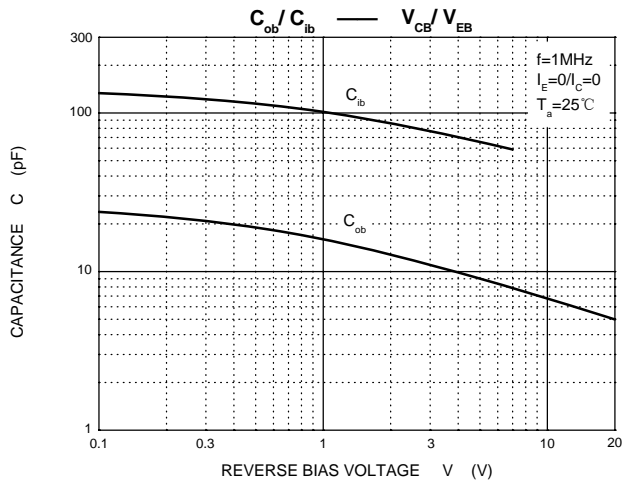
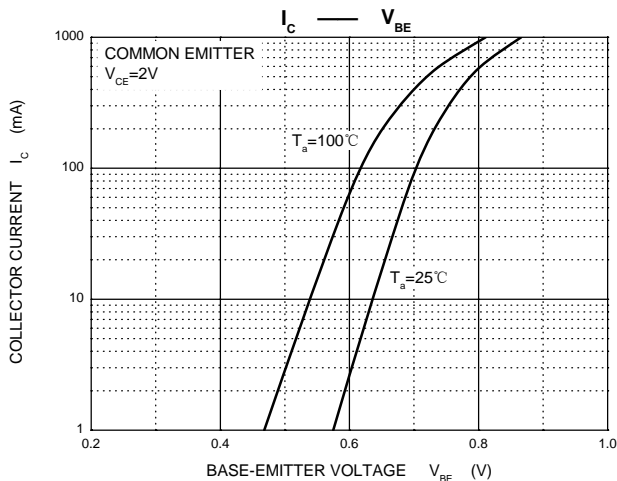
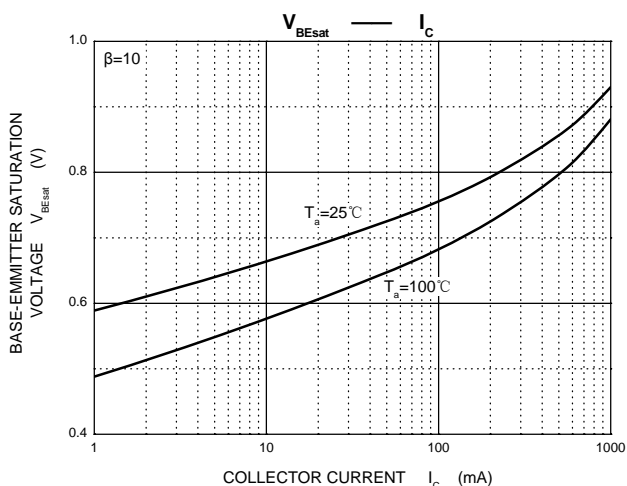
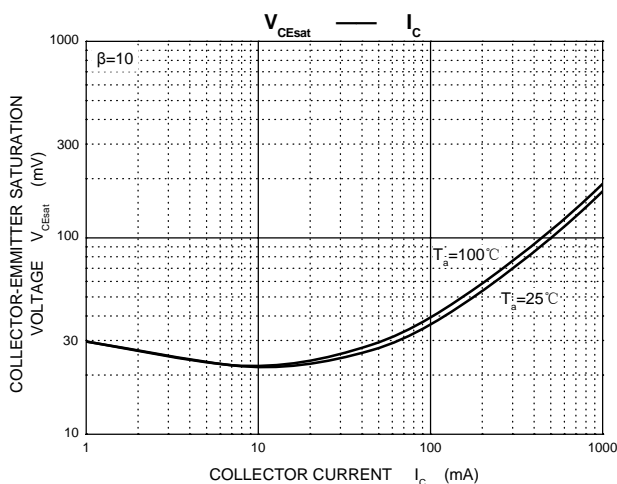
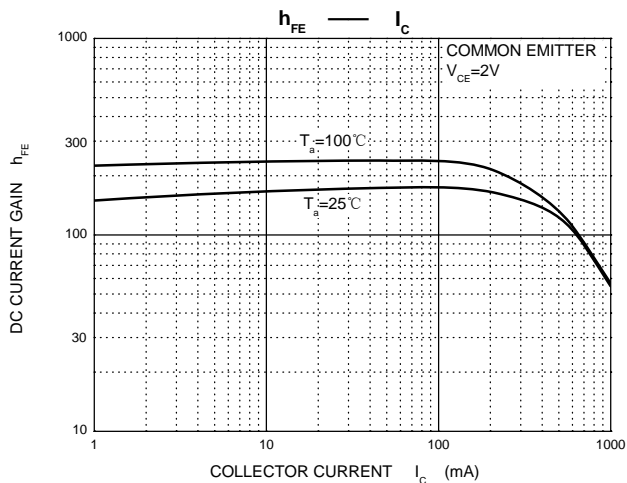
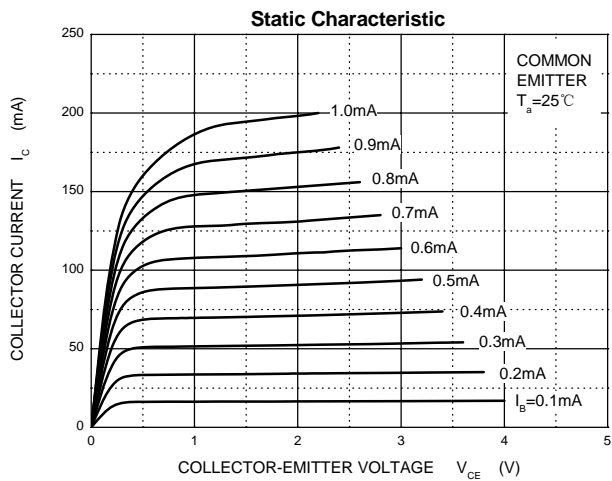
h_{FE} Classification

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	BLK510

Typical Characteristics



Ordering information

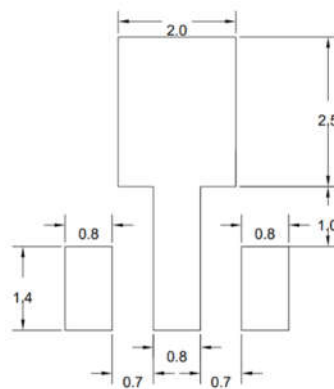
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel, 7" reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-89

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

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