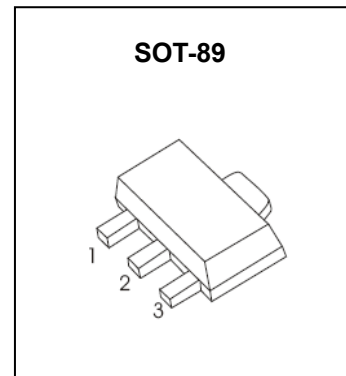


FEATURES

- PNP Complements to BCX51-Q1, BCX52-Q1, BCX53-Q1
- Low Voltage
- High Current
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

APPLICATIONS

- Driver Stages of Audio Amplifiers



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	BCX54-Q1	45
		BCX55-Q1	60
		BCX56-Q1	100
V _{CEO}	Collector-Emitter Voltage	BCX54-Q1	45
		BCX55-Q1	60
		BCX56-Q1	80
V _{EBO}	Emitter-Base Voltage	5	V
I _c	Collector Current	1	A
P _c	Collector Power Dissipation	500	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	250	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

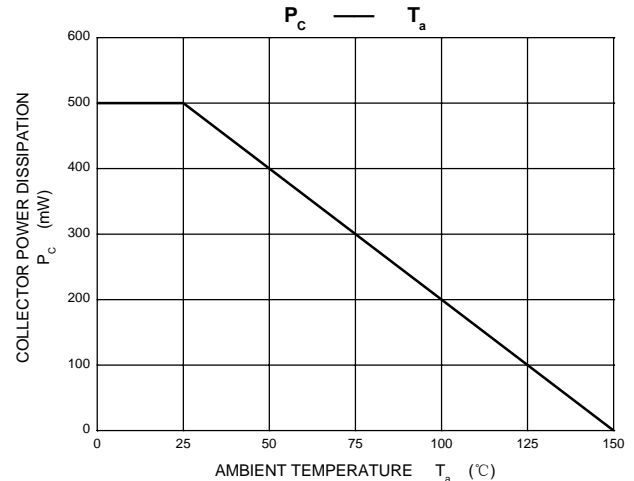
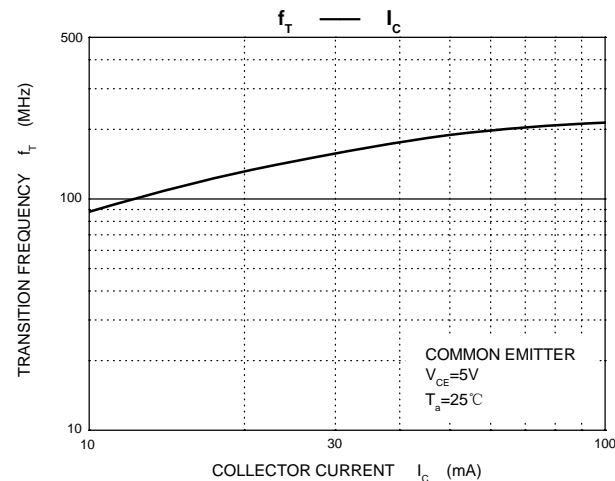
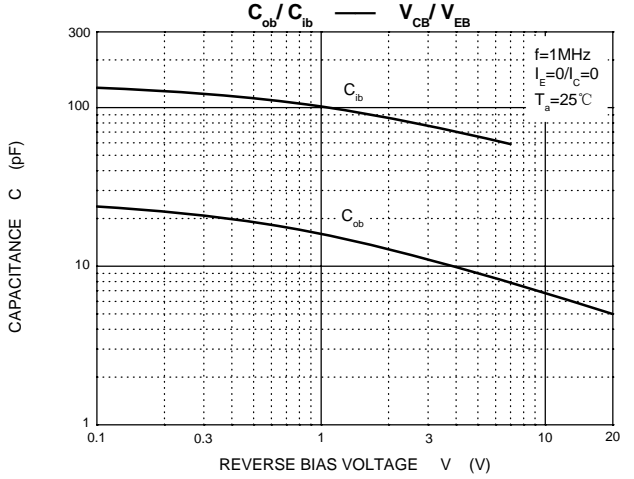
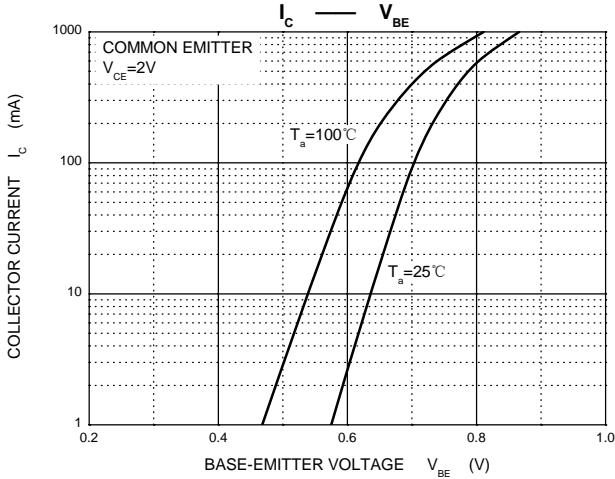
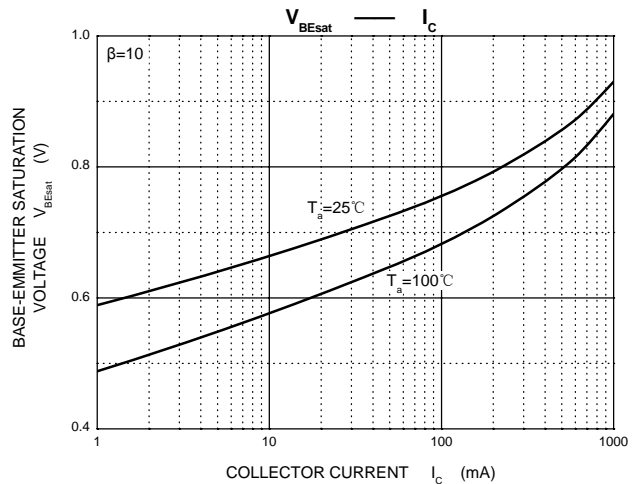
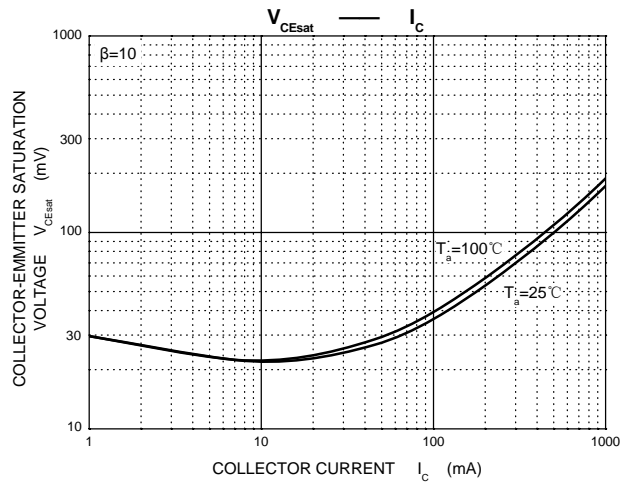
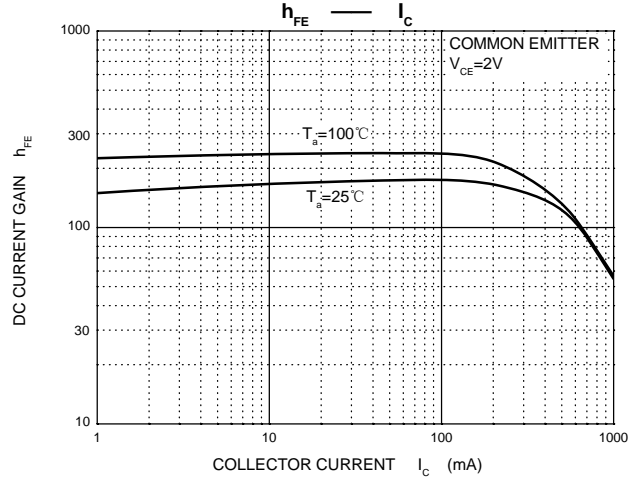
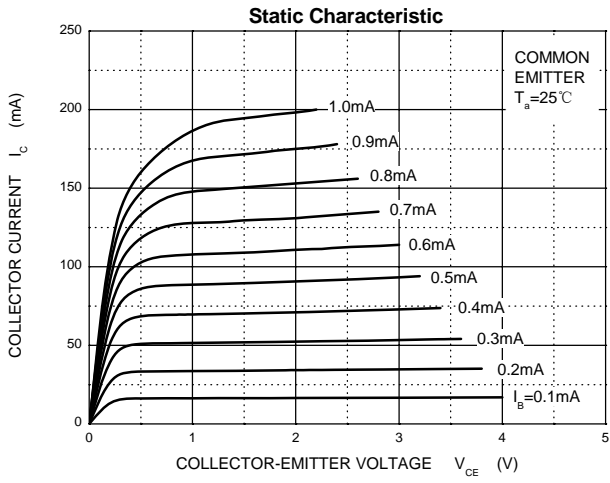
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	BCX54-Q1	45		V
			BCX55-Q1	60		
			BCX56-Q1	100		
Collector-emitter breakdown voltage	V _{(BR)CEO*}	I _C =10mA, I _B =0	BCX54-Q1	45		V
			BCX55-Q1	60		
			BCX56-Q1	80		
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =30V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			0.1	μA
DC current gain	h _{FE(1)*}	V _{CE} =2V, I _C =5mA	40			
		V _{CE} =2V, I _C =150mA	63		250	
		V _{CE} =2V, I _C =0.5A	25			
Collector-emitter saturation voltage	V _{CE(sat)*}	I _C =0.5A, I _B =50mA			0.5	V
Base-emitter voltage	V _{BE*}	V _{CE} =2V, I _C =0.5A			1	V
Transition frequency	f _T	V _{CE} =5V, I _C =10mA, f=100MHz		130		MHz

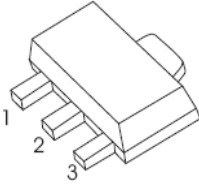
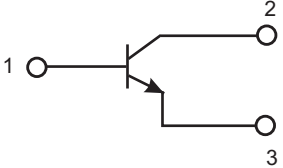
CLASSIFICATION OF $h_{FE(2)}$

RANK	BCX54-Q1 BCX55-Q1 BCX56-Q1	BCX54-10-Q1 BCX55-10-Q1 BCX56-10-Q1	BCX54-16-Q1 BCX55-16-Q1 BCX56-16-Q1
RANGE	63 - 250	63 - 160	100 - 250

Typical Characteristics



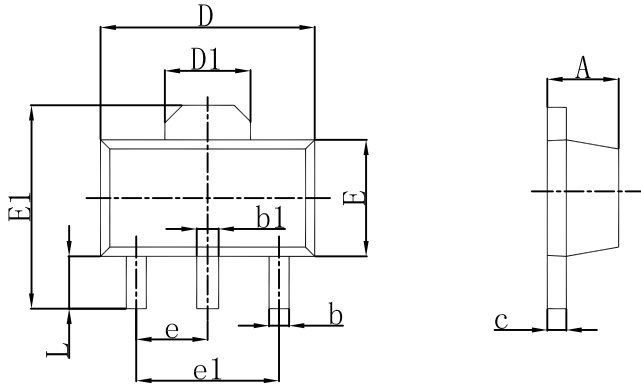
Pinning information

Pin	Simplified outline	Symbol
Pin1 Base Pin2 Collector Pin3 Emitter		

Marking

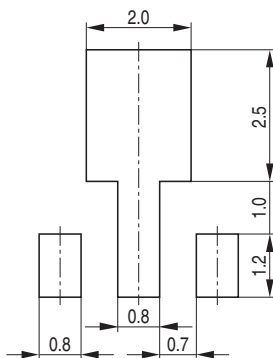
Type number	Marking code
BCX54-Q1	BA
BCX54-10-Q1	BC
BCX54-16-Q1	BD
BCX55-Q1	BE
BCX55-10-Q1	BG
BCX55-16-Q1	BM
BCX56-Q1	BH
BCX56-10-Q1	BK
BCX56-16-Q1	BL

Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.