

FEATURES

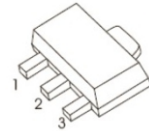
- Epoxy meets UL-94 V-0 flammability rating
- Complementary to BCX51,BCX52,BCX53
- Power Dissipation of 500mW
- High Stability and High Reliability

SOT-89

MECHANICAL DATA

- Case:SOT-89
- Terminals:Plated solderable per MIL-STD-750,method 2026
- Mounting Position: Any
- Marking:BCX54:BA, BCX54-10:BC, BCX54-16:BD
BCX55:BE, BCX55-10:BG, BCX55-16:BM
BCX56:BH, BCX56-10:BK, BCX56-16:BL

- 1. BASE
- 2. COLLECTOR
- 3. EMITTER



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Value	
Collector-Emitter Voltage	V_{CE0}	V	BCX54 BCX55 BCX56	45 60 80
Collector-Base Voltage	V_{CBO}	V	BCX54 BCX55 BCX56	45 60 100
Emitter-Base Voltage	V_{EBO}	V	5.0	
Collector Current, Continuous	I_C	A	1.0	
Power Dissipation	P_D	mW	500	
Operation Junction Temperature	T_J	$^{\circ}\text{C}$	-55 to +150	
Storage Temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150	
Thermal resistance From junction to ambient	$R_{\theta JA}$	$^{\circ}\text{C}/\text{W}$	250	

BCX54, BCX55, BCX56

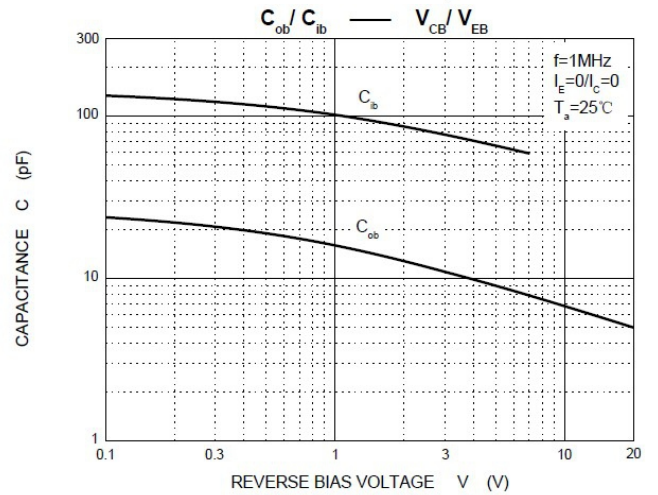
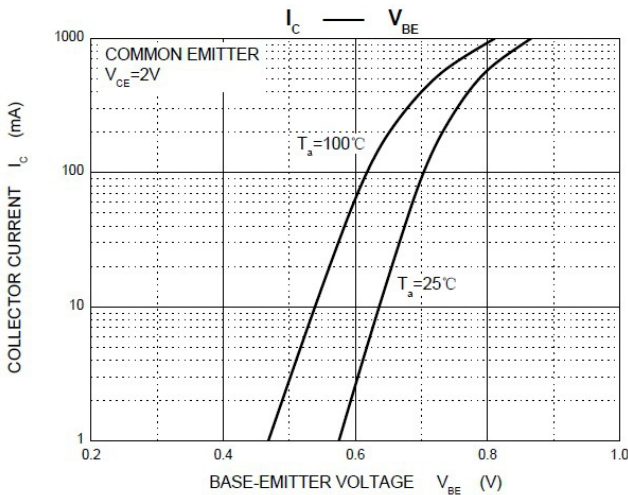
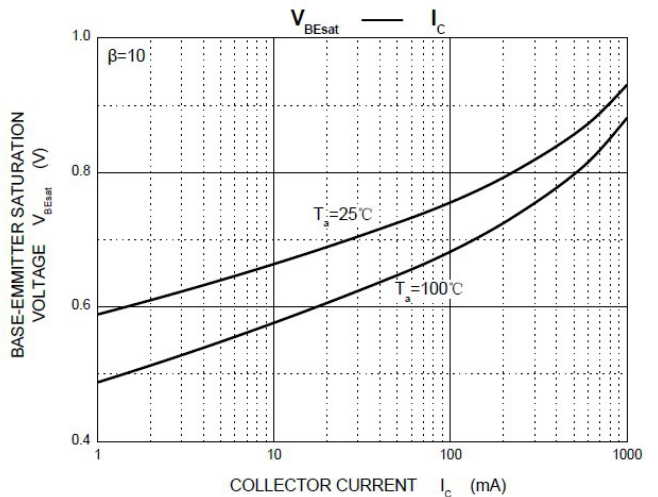
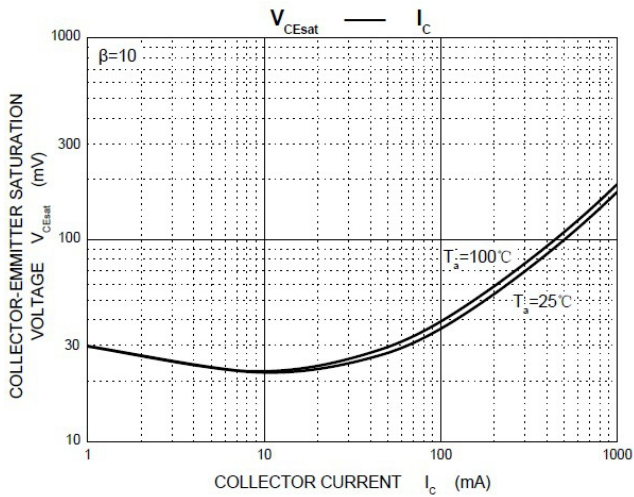
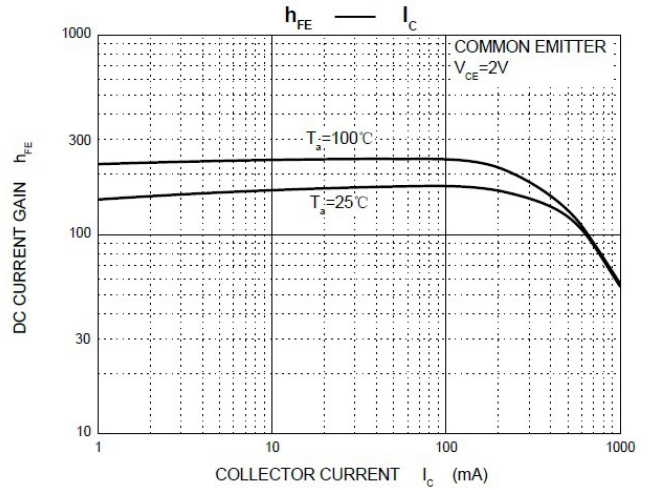
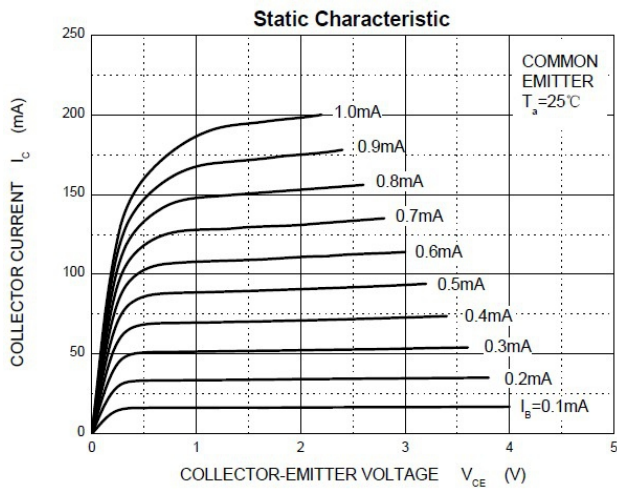
ELECTRICAL CHARACTERISTICS(T_A=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	Vdc	I _C =10mA _{dc} , I _B =0 BCX54 BCX55 BCX56	45 60 80	---
Collector-Base Breakdown Voltage	V _{(BR)CBO}	Vdc	I _C =100μA _{dc} , I _E =0 BCX54 BCX55 BCX56	45 60 100	---
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	Vdc	I _E =10μA _{dc} , I _C =0	5.0	---
Collector cut-off Current	I _{CBO}	μA _{dc}	V _{CB} =30Vdc, I _E =0	---	0.1
Collector cut-off Current	I _{CEX}	nA _{dc}	V _{CE} =-30Vdc, V _{BE} =-3.0Vdc	---	---
Emitter cut-off Current	I _{EBO}	μA _{dc}	V _{EB} =5Vdc, I _C =0	---	0.1
DC Current Gain	h _{FE}		I _C =5mA _{dc} , V _{CE} =2.0Vdc	40	---
			I _C =150mA _{dc} , V _{CE} =2.0Vdc	63	250
			I _C =500mA _{dc} , V _{CE} =2.0Vdc	25	---
Collector-Emitter Saturation Voltage	V _{CE(set)}	Vdc	I _C =10mA _{dc} , I _B =1.0mA _{dc}	---	---
			I _C =500mA _{dc} , I _B =50mA _{dc}	---	0.5
Base-Emitter Saturation Voltage	V _{BE}	Vdc	I _C =10mA _{dc} , I _B =1.0mA _{dc}	---	---
			V _{CE} =2Vdc, I _C =500mA _{dc}	---	1.0
Output Capacitance	C _{obo}	pF	V _{CB} =5.0Vdc, f=1.0MHZ, I _E =0	---	---
Input Capacitance	C _{ibo}	pF	V _{EB} =0.5Vdc, f=1.0MHZ, I _C =0	---	---
Current Gain-Bandwidth Product	f _T	MHZ	I _C =10mA _{dc} , V _{CE} =5Vdc f=100MHZ	130(TYP)	---
Noise Figure	NF	dB	V _{CE} =5.0V, f=1.0kHz, I _C =100μA, R _S =1.0K	---	---

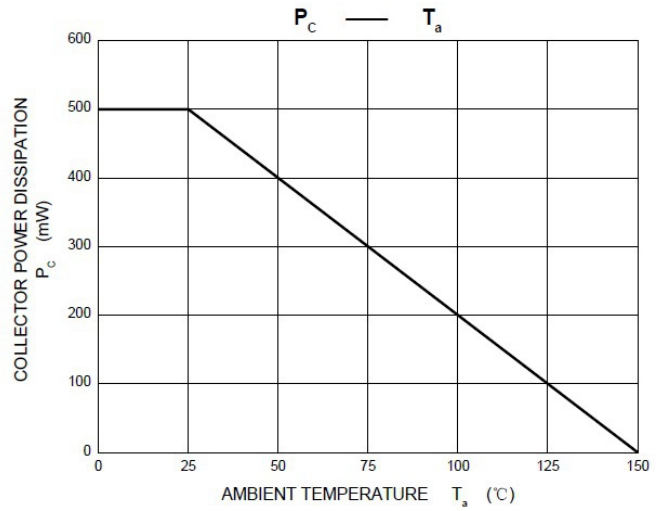
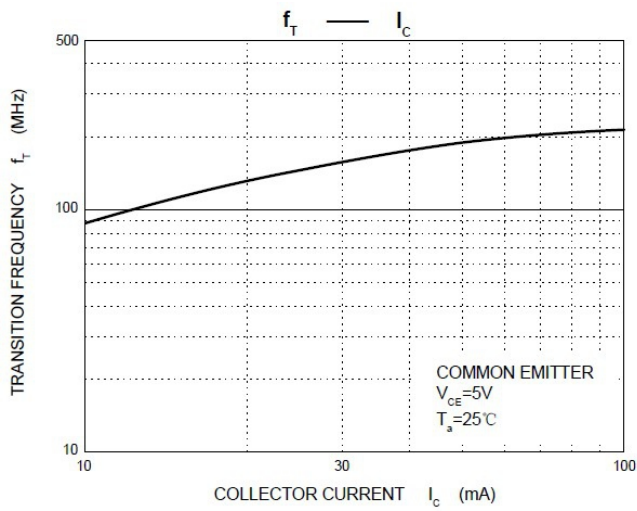
CLASSIFICATION OF h_{FE(2)}

Rank	BCX54 BCX55 BCX56	BCX54-10 BCX55-10 BCX56-10	BCX54-16 BCX55-16 BCX56-16
Range	63-250	63-160	100-250

Characteristics(Typical)

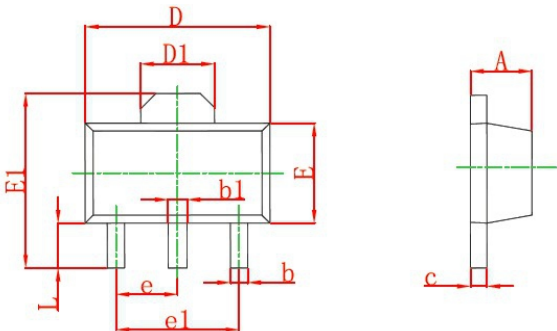


BCX54, BCX55, BCX56



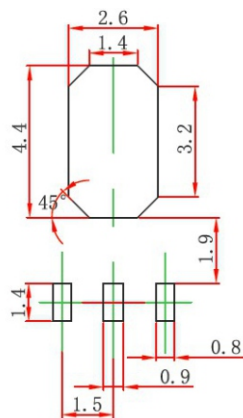
Outline Dimensions

SOT-89



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



Dimensions in millimeters

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