DESCRIPTION

The BCX56, BCX56-10L, BCX56-16L are available in SOT89-3 package.

FEATURE

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

ORDERING INFORMATION

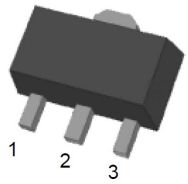
Package Type	Part Number
SOT89-3	BCX56
	BCX56-10L
	BCX56-16L
Note	SPQ: 1,000pcs/Reel
AiT provides all RoHS Compliant Products	

Range	BCX56	BCX56-10L	BCX56-16L
h_{FE}	63~250	63~160	100~250

APPLICATIONS

Driver stages of audio and video amplifiers

PIN DESCRIPTION



Pin#	
1	BASE
2	COLLECTOR
3	EMITTER

ABSOLUTE MAXIMUM RATINGS

V_{CEO}, Collector-Emitter Voltage	80V
V_{CBO}, Collector-Base Voltage	100V
V_{EBO}, Emitter-Base Voltage	5V
I_C, Collector Current (DC)	1A
I_{CM}, Peak Collector Current	1.5A
I_{BM}, Peak Base Current	0.2A
P_C, Collector Power Dissipation	0.5W
T_J, Junction Temperature	150°C
T_{STG}, Storage Temperature Range	-55°C ~+150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

Note: Device mounted on a printed-circuit board, single sided copper, tinplated, mounting pad for collector 6cm2.

ELECTRICAL CHARACTERISTICS

T_A=25°C, unless otherwise specified.

Parameter	Symbol	Conditions	Min	Typ.	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V, I_E=0	-	-	100	nA
		V_{CB}=30V, I_E=0 T_J=150°C	-	-	10	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	100	nA
DC Current Gain	h_{FE}	V_{CE}=2V, I_C=5mA	63	-	-	-
		V_{CE}=2V, I_C=150mA	63	-	250	
		V_{CE}=2V, I_C=500mA	40	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA,	-	-	0.5	V
Base-Emitter Voltage	V_{BE}	I_C=500mA, V_{CE}=2V	-	-	1	V
Transition Frequency	f_T	I_C=10mA, V_{CE}=5V f=100MHz	-	130		MHz

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Static Characteristic

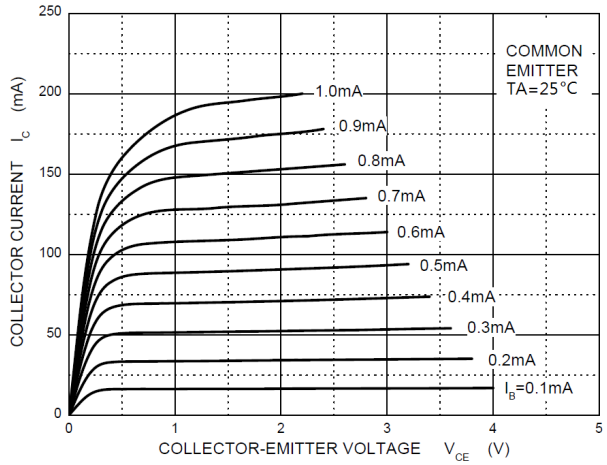


Fig 2. h_{FE} - Ic

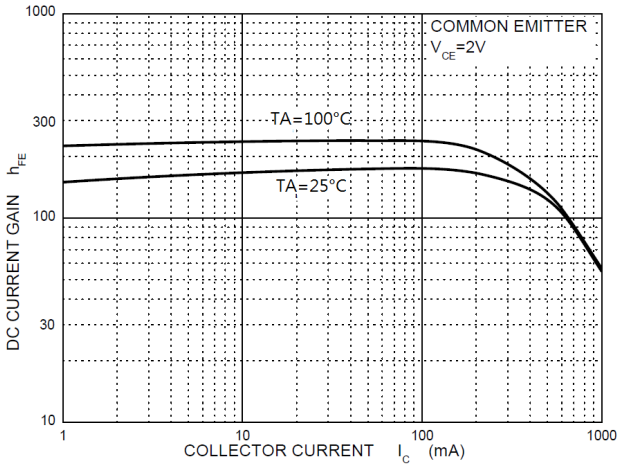


Fig 3. V_{CEsat} - Ic

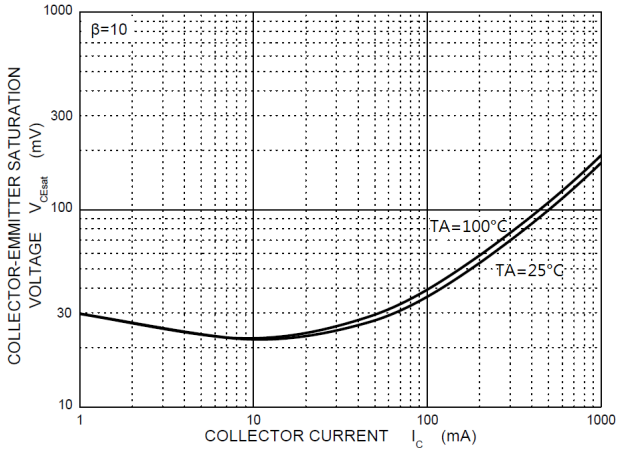


Fig 4. V_{BEsat} - Ic

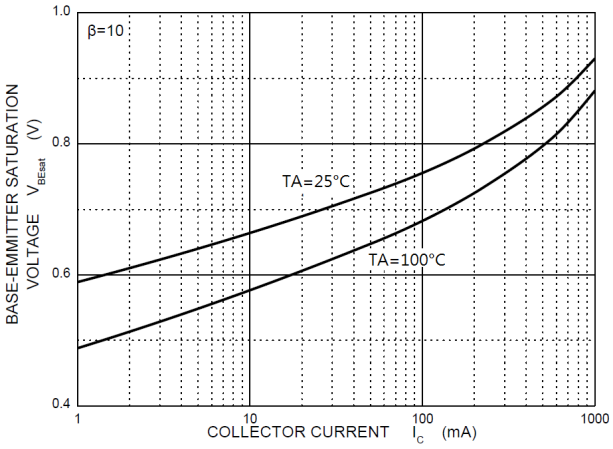


Fig 5. Ic - V_{BE}

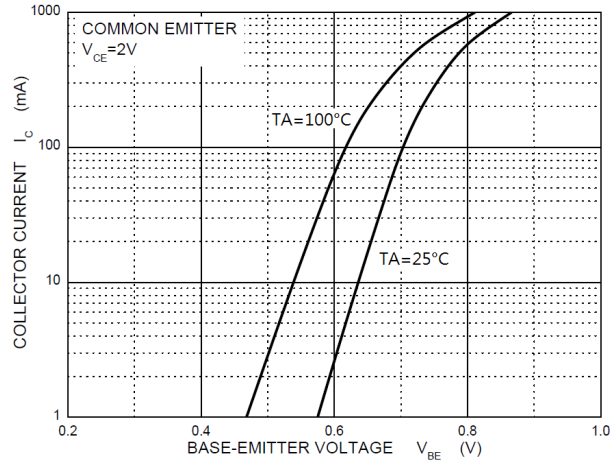


Fig 6. C_{ob}/C_{ib} – V_{CB}/V_{EB}

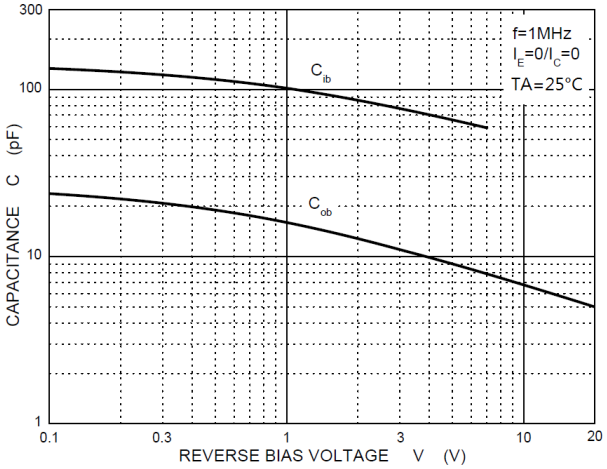


Fig 7. f_T - Ic

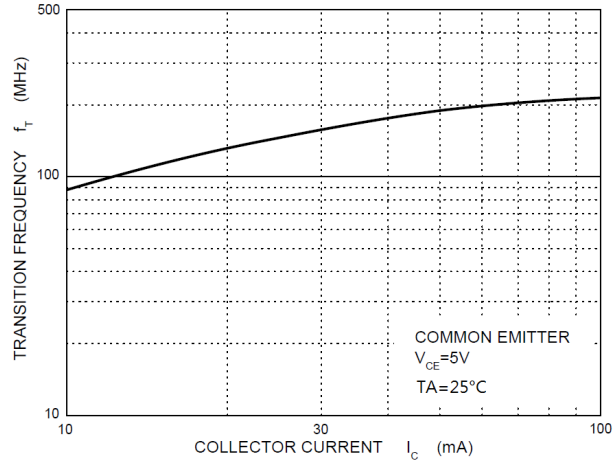
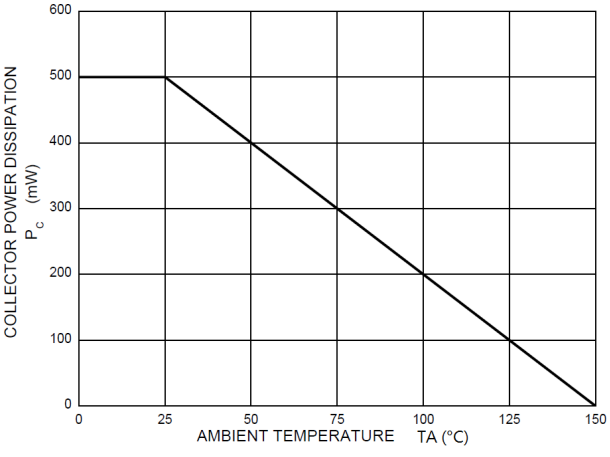
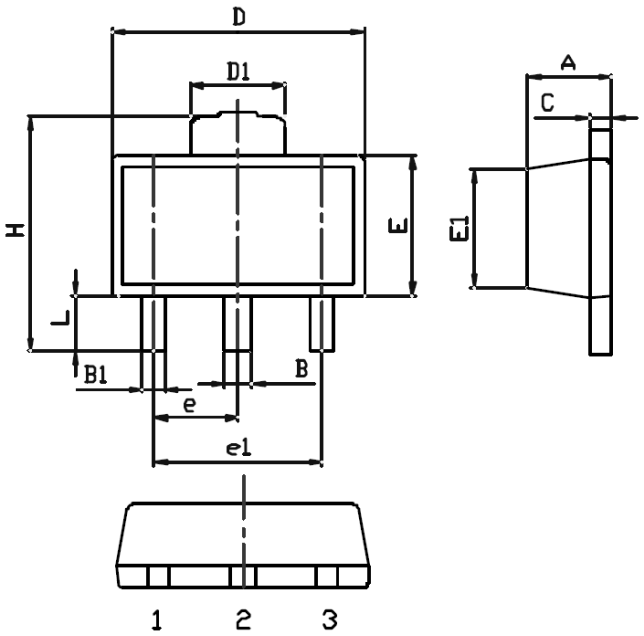


Fig 8. Pc - TA



PACKAGE INFORMATION

Dimension in SOT89-3 (Unit: mm)



Symbol	Min.	Max.
A	1.40	1.60
B	0.46	0.56
B1	0.36	0.48
C	0.35	0.44
D	4.40	4.60
D1	1.62	1.83
E	2.29	2.60
E1	2.29	2.60
e	1.50 REF	
e1	3.00 REF	
H	3.94	4.25
L	0.89	1.20

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