



Micro Commercial Components



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BCX56 BCX56-10 BCX56-16

NPN Plastic-Encapsulate Transistors

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Power Dissipation: $P_{CM}=0.5W$ ($T_{amb}=25^{\circ}C$)
- Collector Current: $I_{CM}=1.0A$
- Collector-Base Voltage: $V_{(BR)CBO}=100V$
- Marking : BCX56=BH, BCX56-10=BK, BCX56-16=BL
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

Symbol	Rating	Value	Unit
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	100	V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	80	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	5	V
I_C	Collector Current DC	1.0	A
P_C	Collector Power Dissipation	0.5(Note1)	W
		0.95(Note2)	
		1.35(Note3)	
T_J	Junction Temperature Range	-55 to +150	$^{\circ}C$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}C$

- [1] Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint.
 [2] Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for collector 1 cm².
 [3] Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for collector 6 cm².

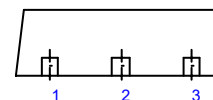
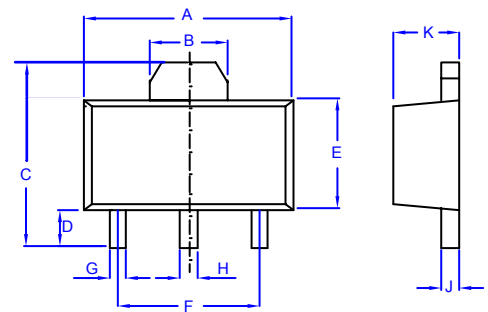
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

V_{CBO}	Collector-Base Voltage ($I_C=100\mu A$, $I_E=0$)	100	---	---	Vdc	
V_{CEO}	Collector-Emitter Voltage ($I_C=10mA$, $I_B=0$)	80	---	---	Vdc	
V_{EBO}	Emitter-Base Voltage ($I_E=10\mu A$, $I_C=0$)	5.0	---	---	Vdc	
I_{CBO}	Collector Cutoff Current ($V_{CB}=30V$, $I_E=0$)	---	---	0.1	μA	
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0V$, $I_C=0$)	---	---	0.1	μA	
$h_{FE(1)}$	DC Current Gain ($V_{CE}=2.0V$, $I_C=150mA$)	BCX56	63	---	250	---
		BCX56-10	63	---	160	---
		BCX56-16	100	---	250	---
$h_{FE(2)}$	DC Current Gain ($V_{CE}=2.0V$, $I_C=5.0mA$)	40	---	---	---	
$h_{FE(3)}$	DC Current Gain ($V_{CE}=2.0V$, $I_C=500mA$)	25	---	---	---	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=500mA$, $I_B=50mA$)	---	---	0.5	Vdc	
V_{BE}	Base-Emitter Voltage ($I_C=500mA$, $V_{CE}=2.0V$)	---	---	1.0	Vdc	
f_T	Transition Frequency ($V_{CE}=100V$, $I_C=50mA$, $f=100MHz$)	130	---	---	MHz	

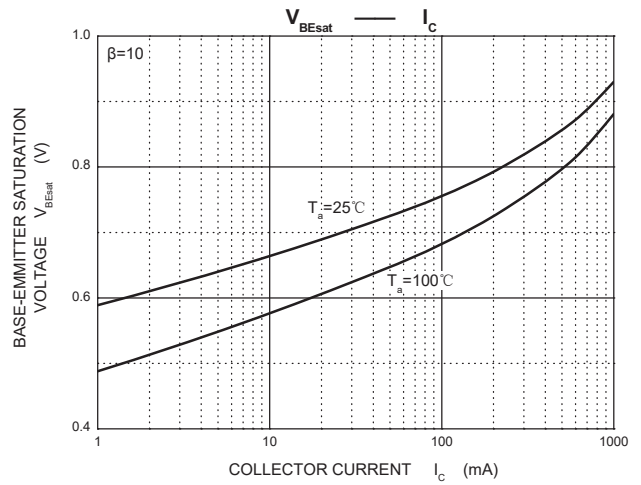
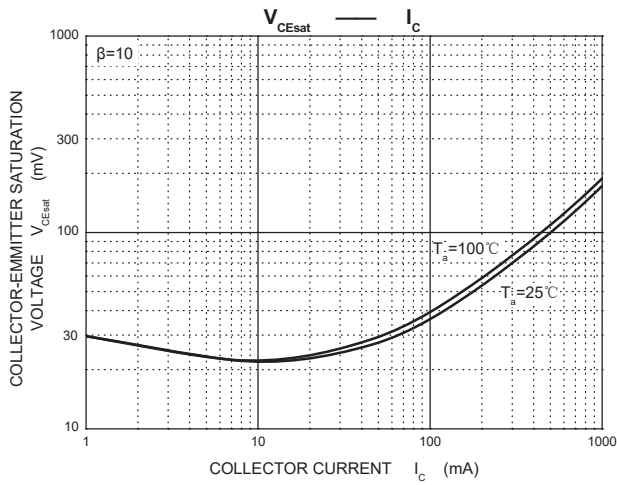
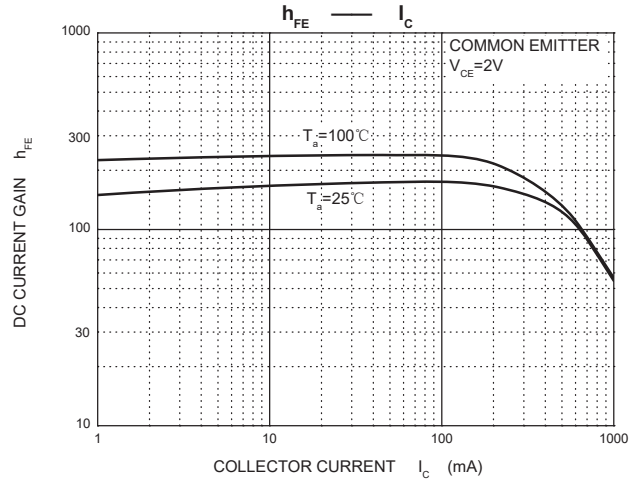
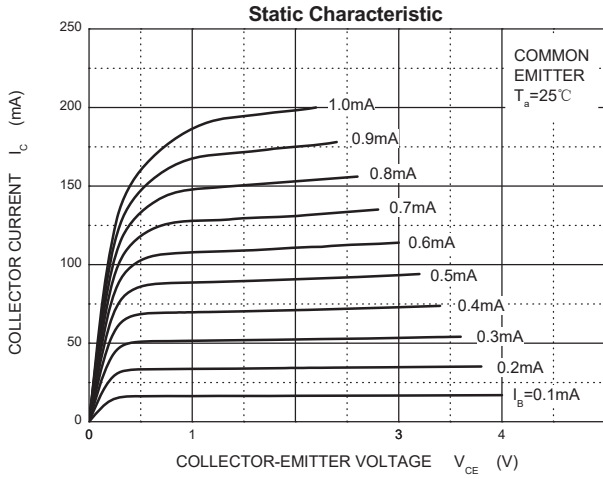
SOT-89



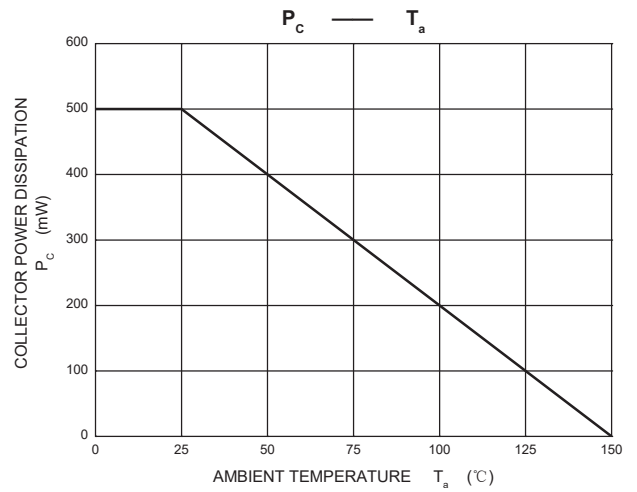
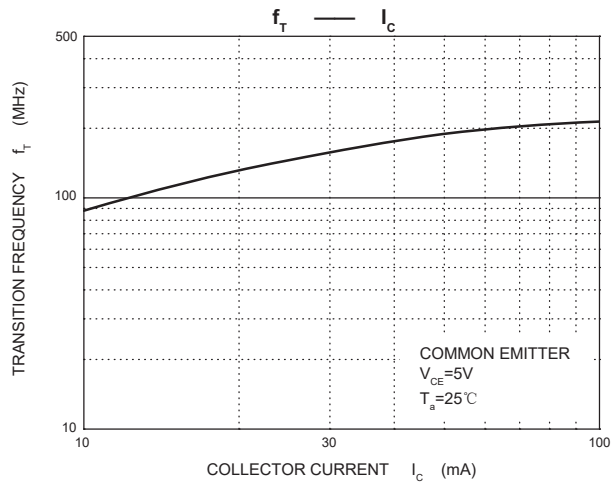
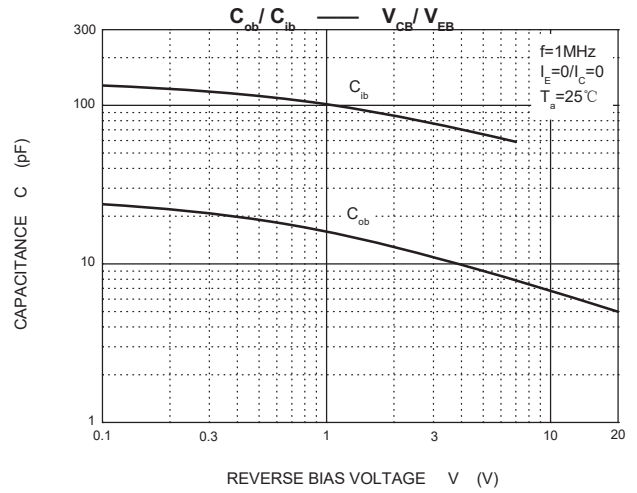
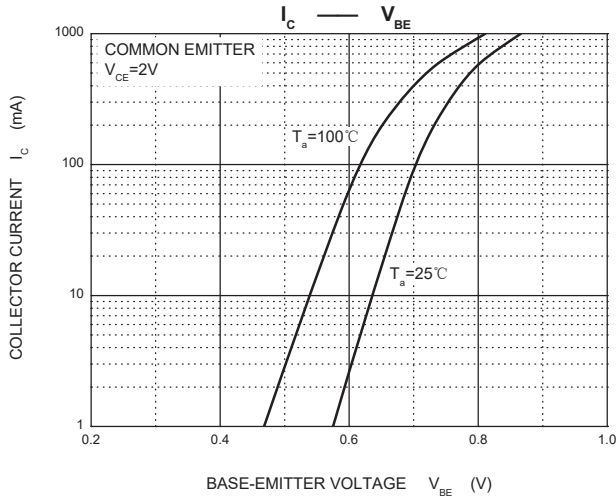
1. BASE
2. COLLECTOR
3. EMITTER

DIM	DIMENSIONS				NOTES
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.061	-----	1.55	-----	REF.
C	.154	.165	3.91	4.25	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	-----	3.00	-----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	

Typical Characteristics



Typical Characteristics





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 1Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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