

Features

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary types: BCP51 ... BCP53 (PNP)



SOT-223

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	100	V
V_{CE0}	Collector-Emitter Voltage	80	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	1	A
I_{CM}	Peak Pulse Collector Current	2	A
I_B	Base Current-Continuous	0.1	A
I_{BM}	Peak Pulse Base Current	0.2	A
P_C	Collector Power Dissipation	1.5	W
T_J, T_{stg}	Operation Junction And Storage Temperature Range	-55~+150	$^{\circ}\text{C}$
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	83.3	$^{\circ}\text{C/W}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=0.1\text{mA}, I_E=0$	100		V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10\text{mA}, I_B=0$	80		V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10\mu\text{A}, I_C=0$	5		V
I_{CBO}	Collector cut-off current	$V_{CB}=30\text{V}, I_E=0$		100	nA
$h_{FE(1)}$	DC current gain	$V_{CE}=2\text{V}, I_C=5\text{mA}$	25		
$h_{FE(2)}$		$V_{CE}=2\text{V}, I_C=150\text{mA}$	63	250	
$h_{FE(3)}$		$V_{CE}=2\text{V}, I_C=500\text{mA}$	25		
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=500\text{mA}, I_B=50\text{mA}$		0.5	V
V_{BE}	Base-emitter voltage	$V_{CE}=2\text{V}, I_C=500\text{mA}$		1	V
f_T	Transition frequency	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	100		MHz

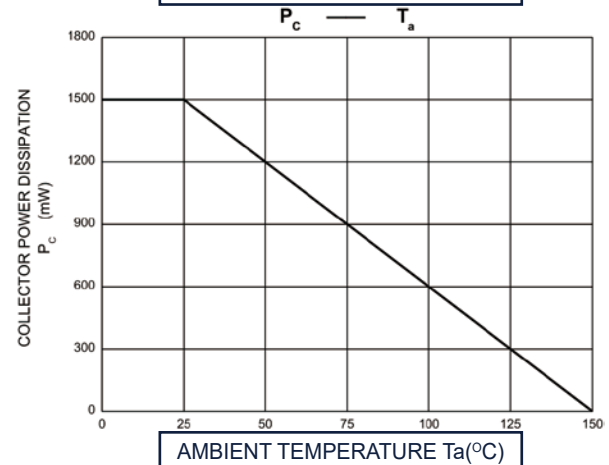
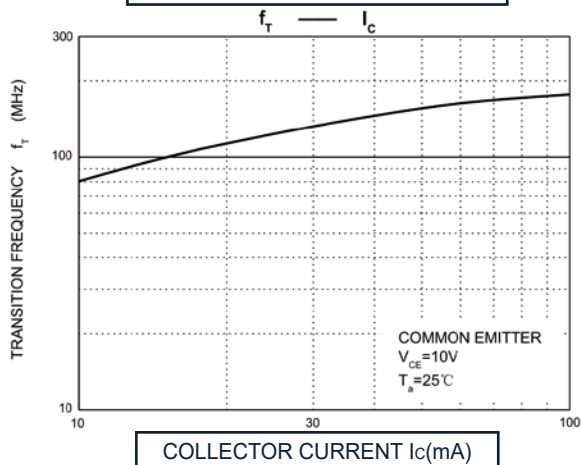
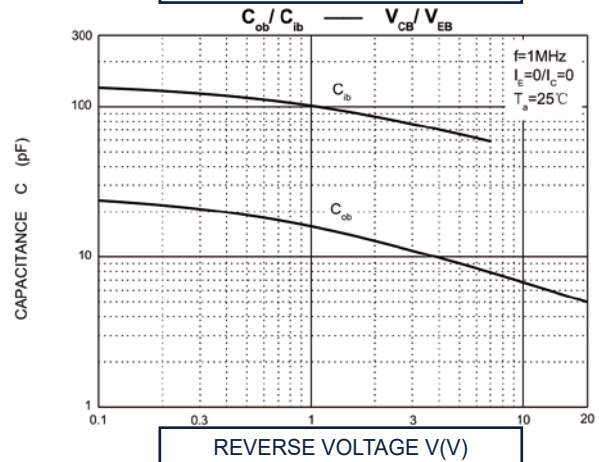
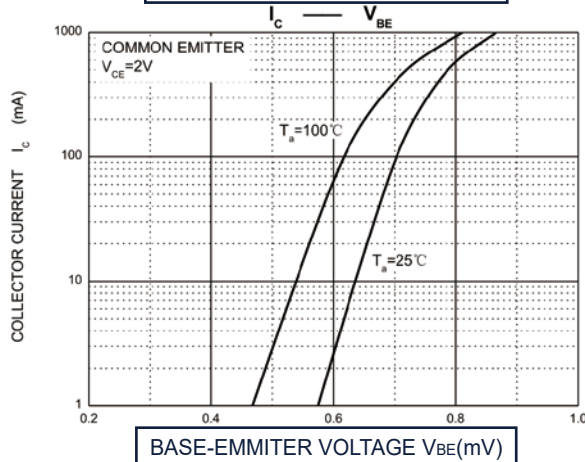
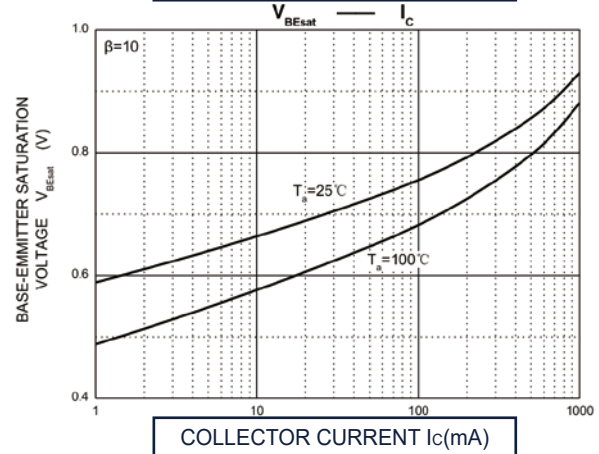
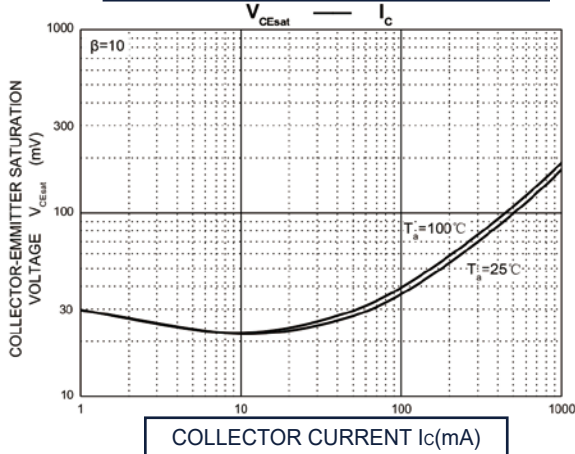
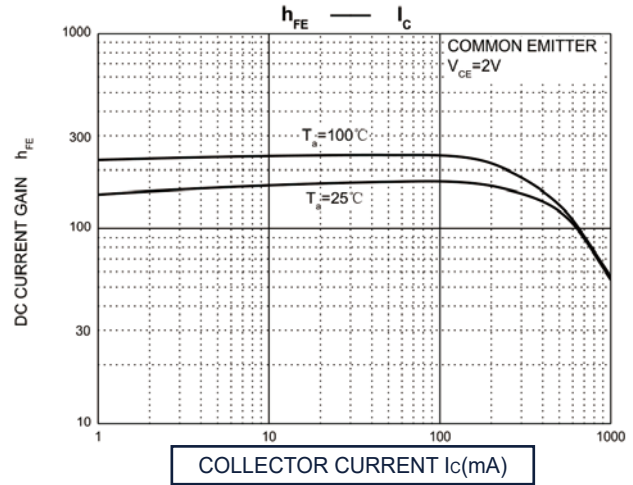
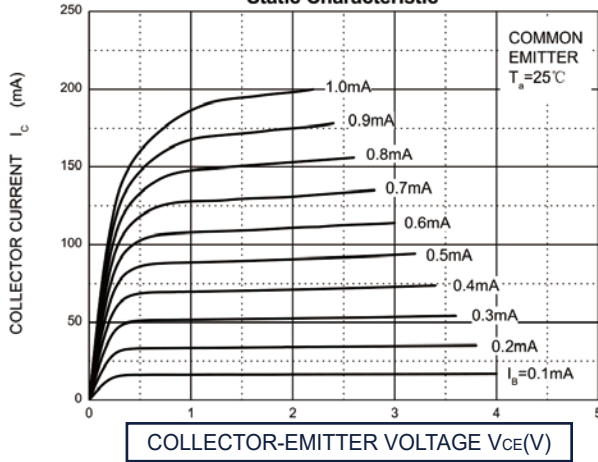
Ordering information

Product ID	Pack	Naming rule	Marking	$h_{FE(1)}$	Qty(PCS)
BCP56	SOT-223	BCP56-16 产品名称 product name	BCP56	100-250	1000
BCP56-16			BCP56-16		



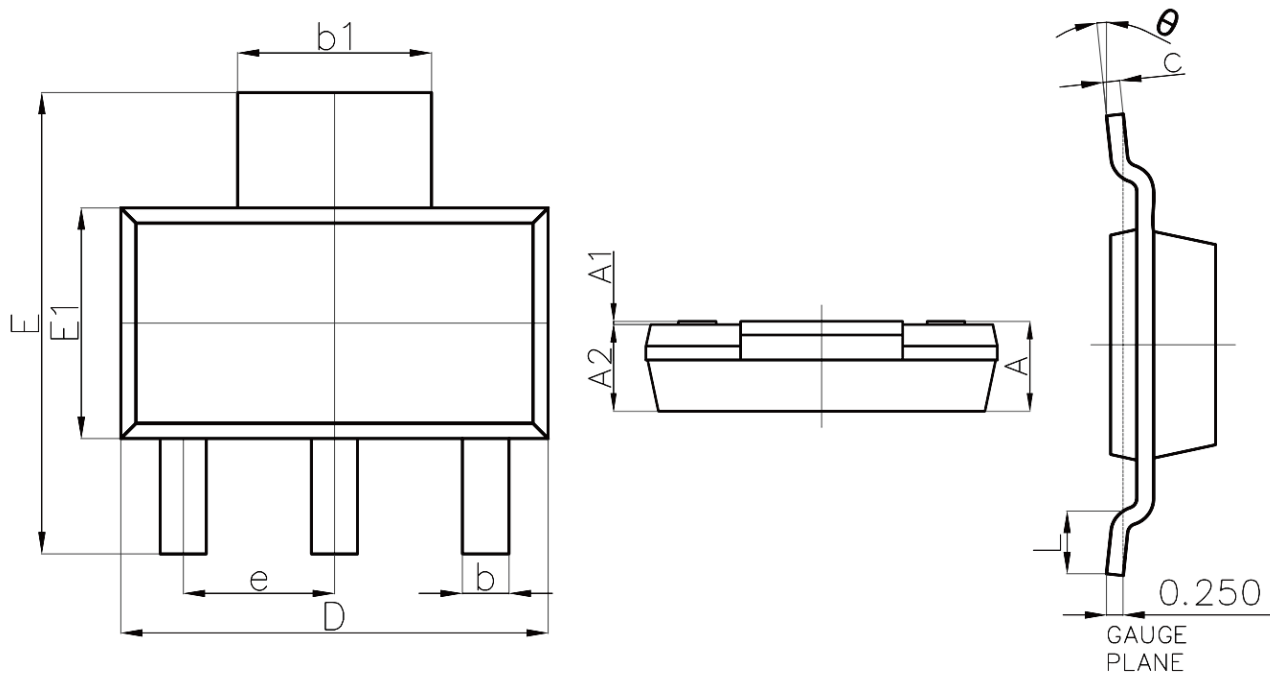
Typical Characteristics

Static Characteristic





SOT-223 Package Outline Dimensions



Symbol	Dimensions in Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	—	1.800	—	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	—	0.030	—
θ	0°	10°	0°	10°