



## PRODUCT DATA SHEET



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**Datasheet**



**Resources**

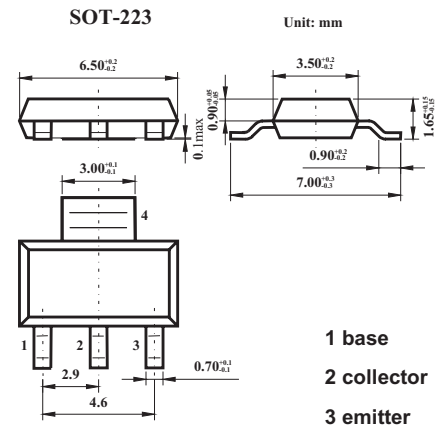


**Samples**

Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at [www.jg-semi.cn](http://www.jg-semi.cn). Please email any questions regarding the system integration to [JINGAO\\_questions@jgsemi.com](mailto:JINGAO_questions@jgsemi.com).

## Features

- High collector current
- 1.3 W power dissipation.



## Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
collector-base voltage	BCP54	45	V
	BCP55	60	V
	BCP56	100	V
collector-emitter voltage	BCP54	45	V
	BCP55	60	V
	BCP56	80	V
emitter-base voltage	$V_{EBO}$	5	V
collector current (DC)	$I_C$	1	A
peak collector current	$I_{CM}$	1.5	A
peak base current	$I_{BM}$	0.2	A
total power dissipation	$P_{tot}$	1.33	W
storage temperature	$T_{stg}$	-65 to +150	$^\circ\text{C}$
junction temperature	$T_j$	150	$^\circ\text{C}$
operating ambient temperature	$T_{amb}$	-65 to +150	$^\circ\text{C}$
thermal resistance from junction to ambient	$R_{th\ j-a}$	94	K/W
thermal resistance from junction to soldering point	$R_{th\ j-s}$	13	K/W

## Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
collector cut-off current	ICBO	IE = 0 A; VCB = 30 V			100	nA
		IE = 0 A; VCB = 30 V; Tj = 150 °C			10	μA
emitter cut-off current	IEBO	IC = 0 A; VEB = 5 V			100	nA
DC current gain	hFE	IC = 5 mA; VCE = 2 V	63			
		IC = 150 mA; VCE = 2 V	63		250	
		IC = 500 mA; VCE = 2 V	40			
DC current gain BCP54-10; BCP55-10; BCP56-10 BCP54-16; BCP55-16; BCP56-16	hFE	VCE = 2 V; IC = 150 mA	63		160	
			100		250	
collector-emitter saturation voltage	VCEsat	IC = 0.5 A; IB = 50 mA			500	mV
base-emitter voltage	VBE	IC = 0.5 A; VCE = 2 V			1	V
transition frequency	fT	IC = 10 mA; VCE = 5 V; f = 100 MHz		130		MHz
DC current gain ratio of the complementary pairs	$\frac{h_{FE1}}{h_{FE2}}$	IC  = 150 mA;  VCE  = 2 V			1.6	

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