



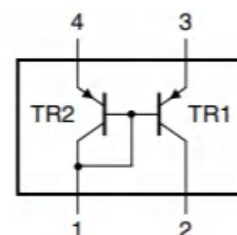
BCV62 PNP General-purpose Double Transistor

Features

- Low Current
- Low Voltage
- Matched Pairs

Applications

- Applications With Working Point Independent of Temperature
- Current Mirrors



SOT-143

Ordering Information

Part Number	Package	Shipping	Marking Code
BCV62	SOT-143	3000 pcs / Tape & Reel	3Mp
BCV62A	SOT-143	3000 pcs / Tape & Reel	3Jp
BCV62B	SOT-143	3000 pcs / Tape & Reel	3Kp
BCV62C	SOT-143	3000 pcs / Tape & Reel	3Lp

Maximum Ratings (@T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
MAXIMUM RATINGS			
V _{CBO}	Collector-Base Voltage	-30	V
V _{CEO}	Collector-Emitter Voltage	-30	V
V _{EBO}	Emitter-Base Voltage	-6	V
I _C	Collector Current - Continuous	-0.1	A
I _{CM}	Collector Current - Peak	-0.2	A
Thermal Characteristic			
P _{tot} (Note1)	Total Power Dissipation, T _a ≤25°C	250	mW
T _J	Junction Temperature	150	°C
T _J , T _{stg}	Junction and Storage Temperature	-65 to +150	°C
R _{th(j-a)} (Note 1)	Thermal resistance from junction to ambient	500	°C/W



Electrical Characteristics (@T_A=25°C unless otherwise specified)

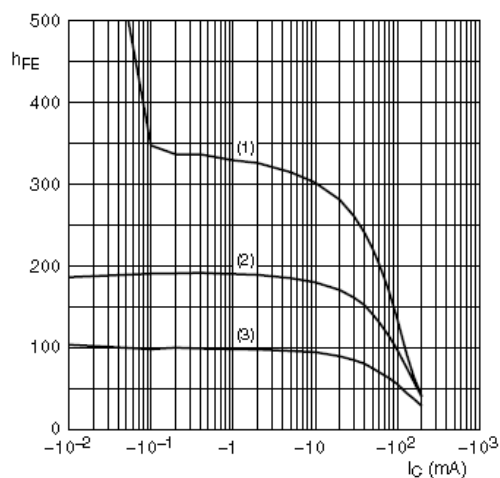
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C = -100μA, I _E = 0	-30	-	-	V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = -10mA, I _B = 0	-30	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = -100μA, I _C = 0	-6	-	-	V
RCollector Cut-Off Current	I _{CBO}	V _{CB} = -30V, I _E = 0	-	-	-15	nA
Emitter Cut-Off Current	I _{EBO}	V _{EB} = -5V, I _C = 0	-	-	-100	nA
DC Current Gain (Note 1)	h _{FE}	V _{CE} = -5V, I _C = -100μA	100	-	-	-
		V _{CE} = -5V, I _C = -2mA				
		BCV62	100		800	
		BCV62A	125		250	
		BCV62B	220		475	
		BCV62C	420		800	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = -10mA, I _B = -0.5mA I _C = -100mA, I _B = -5mA	-	-	-0.3 -0.65	V
Base-Emitter Saturation Voltage (Note 2)	V _{BE(sat)}	I _C = -10mA, I _B = -0.5mA I _C = -100mA, I _B = -5mA	-	-0.7 -	- -1	V
Base-Emitter Turn-on Voltage (Note 3)	V _{BE(on)}	I _C = -2mA, V _{CE} = -5V	-0.6	-	-0.75	V
		I _C = -10mA, V _{CE} = -5V	-	-	-0.82	
Transition Frequency	f _T	V _{CE} = -5V, I _C = -10mA, f = 100MHz	100	-	-	MHz
Collector Output Capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	-	4.5	-	pF

Notes:

- 1: Device mounted on an FR4 PCB.
- 2: V_{BEsat} decreases by about 1.7 mV/K with increasing temperature.
- 3: V_{BE} decreases by about 2 mV/K with increasing temperature.



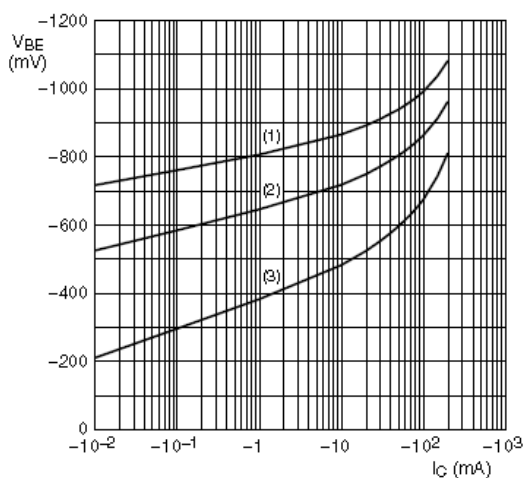
Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)



$V_{CE} = -5\text{ V}$

- (1) $T_{amb} = 150^\circ\text{C}$
- (2) $T_{amb} = 25^\circ\text{C}$
- (3) $T_{amb} = -55^\circ\text{C}$

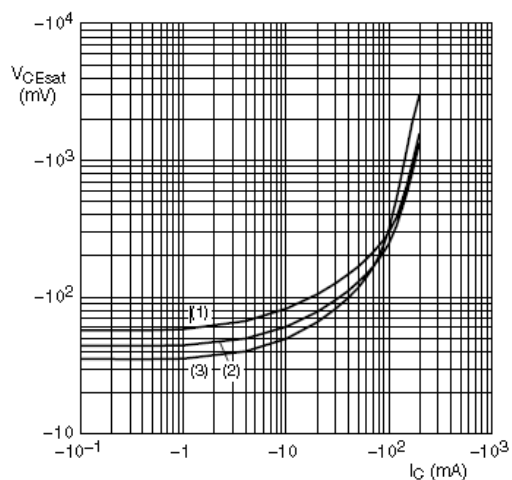
Fig 1. BCV62A: DC current gain as a function of collector current; typical values



$V_{CE} = -5\text{ V}$

- (1) $T_{amb} = -55^\circ\text{C}$
- (2) $T_{amb} = 25^\circ\text{C}$
- (3) $T_{amb} = 150^\circ\text{C}$

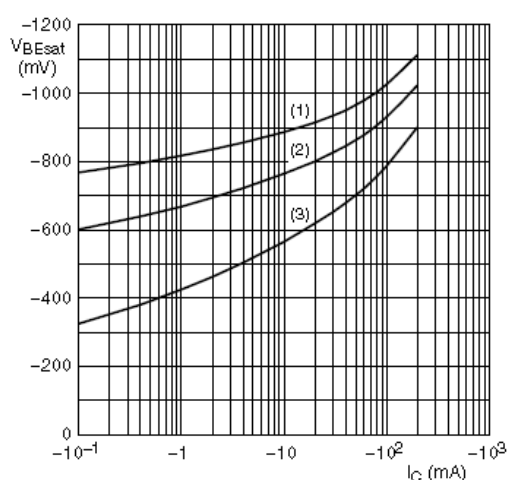
Fig 2. BCV62A: Base-emitter voltage as a function of collector current; typical values



$I_C/I_B = 20$

- (1) $T_{amb} = 150^\circ\text{C}$
- (2) $T_{amb} = 25^\circ\text{C}$
- (3) $T_{amb} = -55^\circ\text{C}$

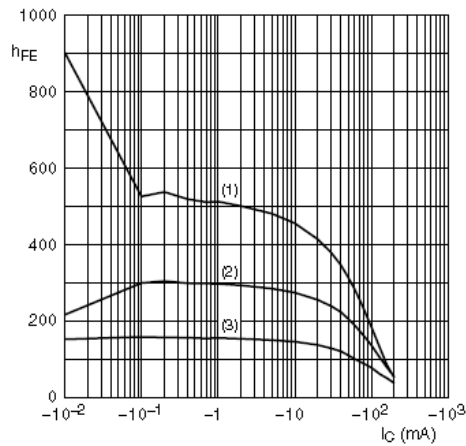
Fig 3. BCV62A: Collector-emitter saturation voltage as a function of collector current; typical values



$I_C/I_B = 20$

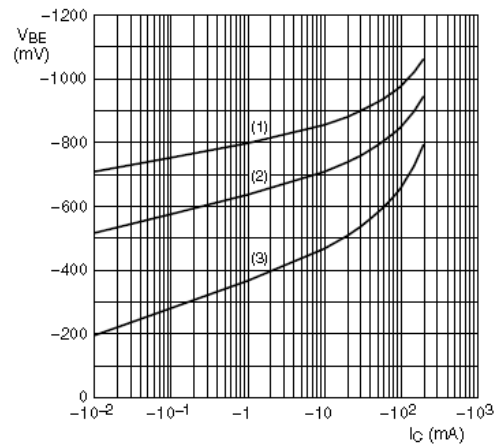
- (1) $T_{amb} = -55^\circ\text{C}$
- (2) $T_{amb} = 25^\circ\text{C}$
- (3) $T_{amb} = 150^\circ\text{C}$

Fig 4. BCV62A: Base-emitter saturation voltage as a function of collector current; typical values



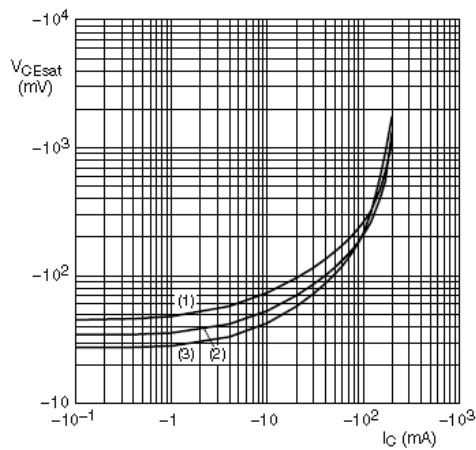
- $V_{CE} = -5\text{ V}$
- (1) $T_{amb} = 150\text{ }^{\circ}\text{C}$
 - (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$
 - (3) $T_{amb} = -55\text{ }^{\circ}\text{C}$

Fig 5. BCV62B: DC current gain as a function of collector current; typical values



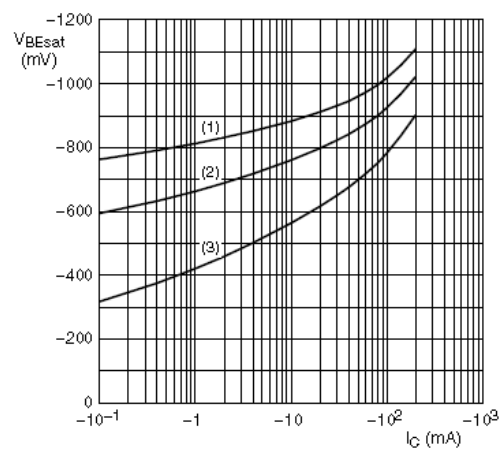
- $V_{CE} = -5\text{ V}$
- (1) $T_{amb} = -55\text{ }^{\circ}\text{C}$
 - (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$
 - (3) $T_{amb} = 150\text{ }^{\circ}\text{C}$

Fig 6. BCV62B: Base-emitter voltage as a function of collector current; typical values



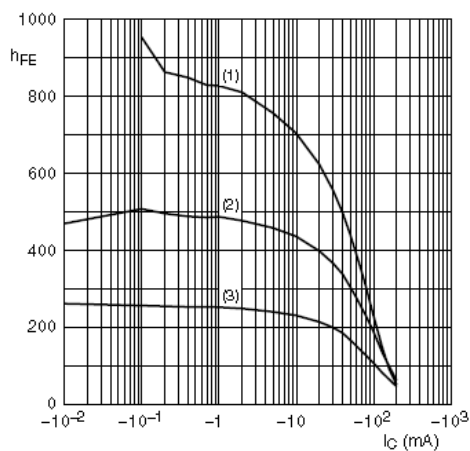
- $I_C/I_B = 20$
- (1) $T_{amb} = 150\text{ }^{\circ}\text{C}$
 - (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$
 - (3) $T_{amb} = -55\text{ }^{\circ}\text{C}$

Fig 7. BCV62B: Collector-emitter saturation voltage as a function of collector current; typical values



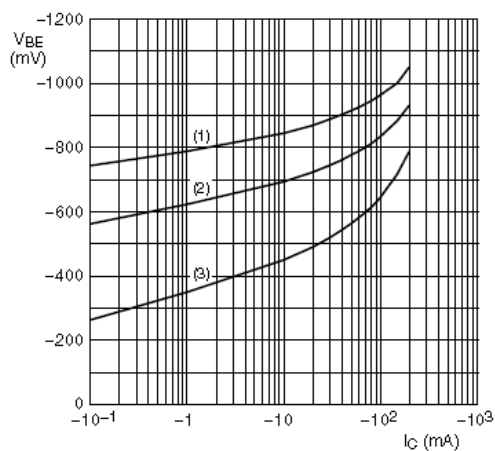
- $I_C/I_B = 20$
- (1) $T_{amb} = -55\text{ }^{\circ}\text{C}$
 - (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$
 - (3) $T_{amb} = 150\text{ }^{\circ}\text{C}$

Fig 8. BCV62B: Base-emitter saturation voltage as a function of collector current; typical values



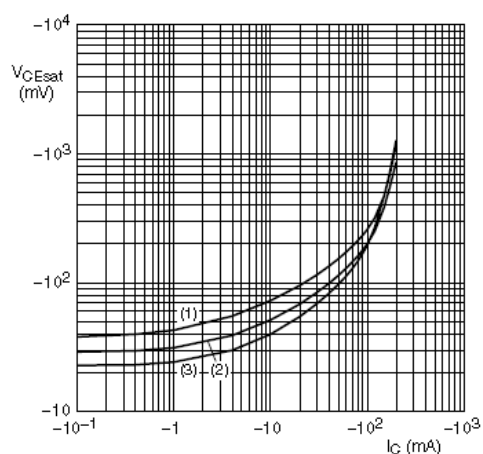
- $V_{CE} = -5\text{ V}$
- (1) $T_{amb} = 150\text{ }^{\circ}\text{C}$
 - (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$
 - (3) $T_{amb} = -55\text{ }^{\circ}\text{C}$

Fig 9. BCV62C: DC current gain as a function of collector current; typical values



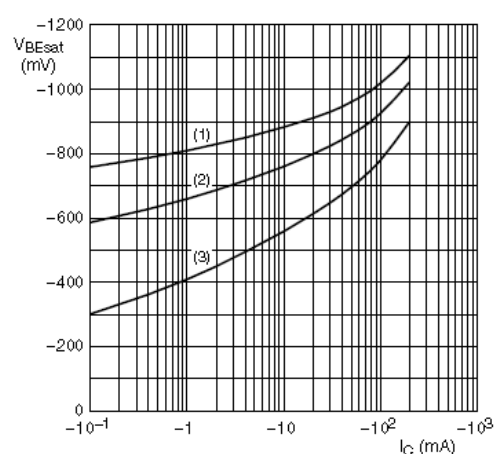
- $V_{CE} = -5\text{ V}$
- (1) $T_{amb} = -55\text{ }^{\circ}\text{C}$
 - (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$
 - (3) $T_{amb} = 150\text{ }^{\circ}\text{C}$

Fig 10. BCV62C: Base-emitter voltage as a function of collector current; typical values



- $I_C/I_B = 20$
- (1) $T_{amb} = 150\text{ }^{\circ}\text{C}$
 - (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$
 - (3) $T_{amb} = -55\text{ }^{\circ}\text{C}$

Fig 11. BCV62C: Collector-emitter saturation voltage as a function of collector current; typical values



- $I_C/I_B = 20$
- (1) $T_{amb} = -55\text{ }^{\circ}\text{C}$
 - (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$
 - (3) $T_{amb} = 150\text{ }^{\circ}\text{C}$

Fig 12. BCV62C: Base-emitter saturation voltage as a function of collector current; typical values



Package Outline

Plastic surface mounted package

SOT-143

