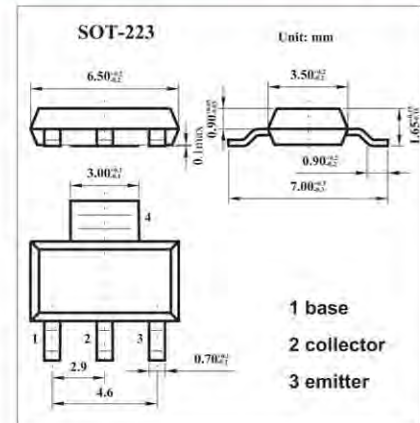


● Features

- High collector current
- 1.3 W power dissipation.



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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (open emitter)	BCP51 BCP52 BCP53	$V_{CB0}$	-45 -60 -100	V V V
Collector-emitter voltage (open base)	BCP51 BCP52 BCP53	$V_{CE0}$	-45 -60 -80	V V V
Emitter-base voltage (open collector)		$V_{EB0}$	-5	V
Collector current		$I_C$	-1	A
Peak collector current		$I_{CM}$	-1.5	A
Peak base current		$I_{BM}$	-0.2	A
Total power dissipation $T_{amb} \leq 25^\circ\text{C}$		$P_{tot}$	1.3	W
Storage temperature		$T_{stg}$	-65 to +150	$^\circ\text{C}$
Junction temperature		$T_j$	150	$^\circ\text{C}$
Operating ambient temperature		$R_{amb}$	-65 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient		$R_{th(j-a)}$	95	K/W
Thermal resistance from junction to solder point		$R_{th(j-s)}$	14	K/W

● Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V <sub>CB</sub> = -30 V, I <sub>E</sub> = 0			-100	nA
		V <sub>CB</sub> = -30 V, I <sub>E</sub> = 0; T <sub>j</sub> = 125°C			-10	μA
Emitter cutoff current	IEBO	VEB = -5 V, I <sub>C</sub> = 0			-100	nA
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = -5 mA; V <sub>CE</sub> = -2 V	63			
		I <sub>C</sub> = -150 mA; V <sub>CE</sub> = -2 V	63		250	
		I <sub>C</sub> = -500 mA; V <sub>CE</sub> = -2 V	40			
DC current gain BCP51-10,BCP52-10,BCP53-10 BCP51-16,BCP52-16,BCP53-16	h <sub>FE</sub>	I <sub>C</sub> = -150 mA; V <sub>CE</sub> = -2 V	63		160	
		I <sub>C</sub> = -150 mA; V <sub>CE</sub> = -2 V	100		250	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -500 mA; I <sub>B</sub> = -50 mA			-0.5	V
Base to emitter voltage	V <sub>BE</sub>	I <sub>C</sub> = -500 mA; V <sub>CE</sub> = -2 V			-1	V
Transition frequency	f <sub>T</sub>	I <sub>C</sub> = -10 mA; V <sub>CE</sub> = -5 V; f = 100 MHz		115		MHz