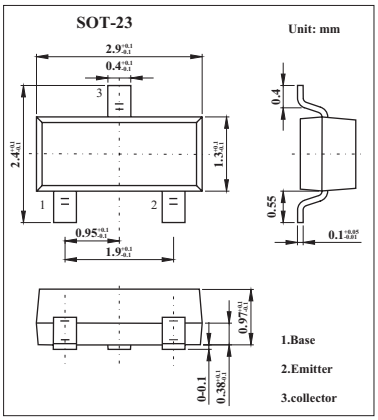
PNP General Purpose Transistors

BCW67,BCW68



Features

- For general AF applications.
- High current gain.
- Low collector-emitter saturation voltage.

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	BCW67	BCW68	Unit
Collector-base voltage	V_{CBO}	-45	-60	V
Collector-emitter voltage	V_{CEO}	-32	-45	V
Emitter-base voltage	V_{EBO}	-5	-5	V
Collector current	I_C	-800		mA
Peak collector current	I_{CM}	-1000		mA
Base current	I_B	-100		mA
Peak base current	I_{BM}	-200		mA
Total power dissipation,T_S = 79℃	P_{tot}	330		mW
Junction temperature	T_j	150		℃
Storage temperature	T_{stg}	-65 to +150		℃
Junction - soldering point	R_{thJS}	≤215		K/W

BCW67,BCW68

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Collector-emitter breakdown voltage	BCW67	$V_{(BR)CEO}$	I_C = -10 mA, I_B = 0	-32			V
	BCW68			-45			
Collector-base breakdown voltage	BCW67	$V_{(BR)CBO}$	I_C = -10 μA, I_E = 0	-45			V
	BCW68			-60			
Emitter-base breakdown voltage		$V_{(BR)EBO}$	I_E = -10μA, I_C = 0	-5			V
Collector cutoff current	BCW67	I_{CBO}	V_{CB} = -32 V, I_E = 0			-20	nA
	BCW68		V_{CB} = -45 V, I_E = 0			-20	
	BCW67	I_{CBO}	V_{CB} = -32 V, I_E = 0 , T_A = 150 ℃			-20	μA
	BCW68		V_{CB} = -45 V, I_E = 0 , T_A = 150 ℃			-20	
Emitter cutoff current		I_{EBO}	V_{EB} = -4 V, I_C = 0			-20	nA
DC current gain * hFE-group	A/F	h_{FE}	I_C = 100 μA, V_{CE} = 10 V	35			
	B/G			50			
	C/H			80			
DC current gain * hFE-group	A/F	h_{FE}	I_C = 10 mA, V_{CE} = 1 V	75			
	B/G			120			
	C/H			180			
DC current gain * hFE-group	A/F	h_{FE}	I_C = -100 mA, V_{CE} = -1 V	100	160	250	
	B/G			160	250	400	
	C/H			250	350	630	
Collector-emitter saturation voltage *		$V_{CE(sat)}$	I_C = -100 mA, I_B = -10 mA			-0.3	V
			I_C = -500 mA, I_B = -50 mA			-0.7	
Base-emitter saturation voltage *		$V_{BE(sat)}$	I_C = -100 mA, I_B = -10 mA			-1.25	
			I_C = -500 mA, I_B = -50 mA			-2	
Transition frequency		f_T	I_C = -50 mA, V_{CE} = -5 V, f = 20 MHz		200		MHz
Collector-base capacitance		Ccb	V_{CB} = -10 V, f = 1 MHz		6		pF
Emitter-base capacitance		Ceb	V_{EB} = -0.5 V, f = 1 MHz		60		

* Pulse test: t ≤ 300μs, D = 2%.

■ h_{FE} Classification

TYPE	BCW67		
Rank	A	B	C
Marking	DAs	DBs	DCs

TYPE	BCW68		
Rank	F	G	H
Marking	DFs	DGs	DHs