

PNP General Purpose Transistors

BCW67,BCW68

■ Features

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

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

Parameter	Symbol	BCW67	BCW68	Unit
Collector-base voltage	V_{CB0}	-45	-60	V
Collector-emitter voltage	V_{CE0}	-32	-45	V
Emitter-base voltage	V_{EB0}	-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, $T_s = 79^\circ\text{C}$	P_{tot}	330		mW
Junction temperature	T_j	150		$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +150		$^\circ\text{C}$
Junction - soldering point	R_{thJS}	≤ 215		K/W

BCW67,BCW68

■ Electrical Characteristics Ta = 25°C

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 °C			-20	μA
	BCW68		V _{CB} = -45 V, I _E = 0, T _A = 150 °C			-20	
Emitter cutoff current		I _{EBO}	V _{EB} = -4 V, I _C = 0			-20	nA
DC current gain *	hFE-group	A/F	I _C = 100 μA, V _{CE} = 10 V	35			
		B/G		50			
		C/H		80			
DC current gain *	hFE-group	A/F	I _C = 10 mA, V _{CE} = 1 V	75			
		B/G		120			
		C/H		180			
DC current gain *	hFE-group	A/F	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		C _{cb}	V _{CB} = -10 V, f = 1 MHz		6		pF
Emitter-base capacitance		C _{eb}	V _{EB} = -0.5 V, f = 1 MHz		60		

* Pulse test: t ≤ 300μs, D = 2%.

■ hFE Classification

TYPE	BCW67		
Rank	A	B	C
Marking	DAs	DBs	DCs

TYPE	BCW68		
Rank	F	G	H
Marking	DFs	DGs	DHs