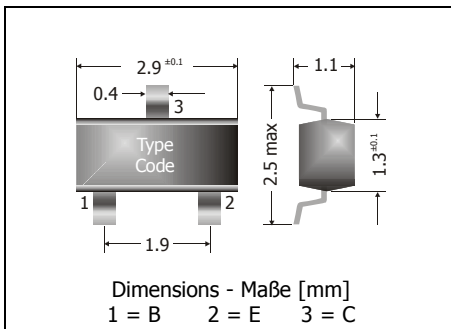


BCW68F ... BCW68H**PNP**
Surface Mount General Purpose Si-Epi-Planar Transistors
Si-Epi-Planar Universaltransistoren für die Oberflächenmontage
PNP

Version 2006-07-31



Power dissipation – Verlustleistung

250 mW

Plastic case
KunststoffgehäuseSOT-23
(TO-236)

Weight approx. – Gewicht ca.

0.01 g

Plastic material has UL classification 94V-0
Gehäusematerial UL94V-0 klassifiziertStandard packaging taped and reeled
Standard Lieferform getupet auf Rolle**Maximum ratings (T_A = 25°C)****Grenzwerte (T_A = 25°C)**

			BCW68F ... BCW68H
Collector-Emitter-volt. – Kollektor-Emitter-Spannung	B open	- V _{CEO}	45 V
Collector-Base-voltage – Kollektor-Basis-Spannung	E open	- V _{CBO}	60 V
Collector-Base-voltage – Kollektor-Basis-Spannung	C open	- V _{EB0}	5 V
Power dissipation – Verlustleistung		P _{tot}	250 mW ¹⁾
Collector current – Kollektorstrom (dc)		- I _C	800 mA
Peak Collector current – Kollektor-Spitzenstrom		- I _{CM}	1000 mA
Peak Base current – Basis-Spitzenstrom		- I _{BM}	200 mA
Junction temperature – Sperrschichttemperatur		T _j	-55...+150°C
Storage temperature – Lagerungstemperatur		T _s	-55...+150°C

Characteristics (T_j = 25°C)**Kennwerte (T_j = 25°C)**

			Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis ²⁾					
- V _{CE} = 10 V, - I _C = 100 µA	BCW68F	h _{FE}	35	–	–
	BCW68G	h _{FE}	50	–	–
	BCW68H	h _{FE}	80	–	–
- V _{CE} = 1 V, - I _C = 10 mA	BCW68F	h _{FE}	75	–	–
	BCW68G	h _{FE}	120	–	–
	BCW68H	h _{FE}	180	–	–
- V _{CE} = 1 V, - I _C = 100 mA	BCW68F	h _{FE}	100	160	250
	BCW68G	h _{FE}	160	250	400
	BCW68H	h _{FE}	250	350	630
- V _{CE} = 2 V, - I _C = 500 mA	BCW68F	h _{FE}	35	–	–
	BCW68G	h _{FE}	60	–	–
	BCW68H	h _{FE}	100	–	–

1 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss

2 Tested with pulses t_p = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%

Characteristics (T_j = 25°C)
Kennwerte (T_j = 25°C)

		Min.	Typ.	Max.
Collector-Emitter saturation voltage – Kollektor-Sättigungsspannung ²⁾				
- I _C = 100 mA, - I _B = 10 mA	- V _{CEsat}	–	–	300 mV
- I _C = 500 mA, - I _B = 50 mA	- V _{CEsat}	–	–	700 mV
Base-Emitter saturation voltage – Basis-Sättigungsspannung ²⁾				
- I _C = 100 mA, - I _B = 10 mA	- V _{BEsat}	–	–	1.25 V
- I _C = 500 mA, - I _B = 50 mA	- V _{BEsat}	–	–	2.0 V
Collector-Base cutoff current – Kollektor-Basis-Reststrom				
- V _{CB} = 45 V, (E open)	- I _{CB0}	–	–	20 nA
- V _{CE} = 45 V, T _j = 125°C, (E open)	- I _{CB0}	–	–	20 µA
Emitter-Base cutoff current				
- V _{EB} = 4 V, (C open)	- I _{EB0}	–	–	20 nA
Gain-Bandwidth Product – Transistfrequenz				
- V _{CE} = 5 V, - I _C = 50 mA, f = 100 MHz	f _T	–	200 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität				
- V _{CB} = 10 V, I _E = i _e = 0, f = 1 MHz	C _{CB0}	–	6 pF	–
Emitter-Base Capacitance – Emitter-Basis-Kapazität				
- V _{EB} = 0.5 V, I _C = i _c = 0, f = 1 MHz	C _{EBO}	–	60 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R _{thA}	< 420 K/W ¹⁾		
Recommended complementary NPN transistors Empfohlene komplementäre NPN-Transistoren		BCW66F ... BCW66H		
Marking - Stempelung		BCW68F = DF BCW68G = DG BCW68H = DH		

²⁾ Tested with pulses t_p = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%

¹⁾ Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss