

BCW 67, BCW 68

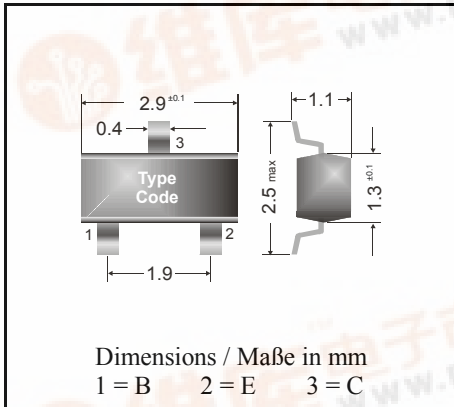


General Purpose Transistors

PNP

Surface mount Si-Epitaxial Planar Transistors
Si-Epitaxial Planar Transistoren für die Oberflächenmontage

PNP



Power dissipation – Verlustleistung 250 mW
 Plastic case SOT-23
 Kunststoffgehäuse (TO-236)
 Weight approx. – Gewicht ca. 0.01 g
 Plastic material has UL classification 94V-0
 Gehäusematerial UL94V-0 klassifiziert
 Standard packaging taped and reeled
 Standard Lieferform gegurtet auf Rolle

Maximum ratings (T_A = 25°C)

Grenzwerte (T_A = 25°C)

			BCW 67	BCW 68
Collector-Emitter-voltage	B open	- V _{CE0}	32 V	45 V
Collector-Base-voltage	E open	- V _{CB0}	45 V	60 V
Emitter-Base-voltage	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	
Base current – Basis-Spitzenstrom		- I _B	100 mA	
Peak Base current – Basis-Spitzenstrom		- I _{BM}	200 mA	
Junction temperature – Sperrschichttemperatur		T _j	150°C	
Storage temperature – Lagerungstemperatur		T _s	- 65...+ 150°C	

Characteristics (T_j = 25°C)

Kennwerte (T_j = 25°C)

			Min.	Typ.	Max.
Collector-Base cutoff current – Kollektorreststrom					
I _E = 0, - V _{CB} = 32 V	BCW 67	- I _{CB0}	–	–	20 nA
		- I _{CB0}	–	–	20 µA
I _E = 0, - V _{CB} = 45 V	BCW 68	- I _{CB0}	–	–	20 nA
		- I _{CB0}	–	–	20 µA
Emitter-Base cutoff current – Emitterreststrom					
I _C = 0, - V _{EB} = 4 V		- I _{EB0}	–	–	20 nA



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

Characteristics ($T_j = 25^\circ\text{C}$)Kennwerte ($T_j = 25^\circ\text{C}$)

		Min.	Typ.	Max.
Collector saturation volt. – Kollektor-Sättigungsspg. ¹⁾				
- $I_C = 100\text{ mA}$, - $I_B = 10\text{ mA}$	- V_{CEsat}	–	–	300 mV
- $I_C = 500\text{ mA}$, - $I_B = 50\text{ mA}$	- V_{CEsat}	–	–	700 mV
Base saturation voltage – Basis-Sättigungsspannung ¹⁾				
- $I_C = 100\text{ mA}$, - $I_B = 10\text{ mA}$	- V_{BEsat}	–	–	1.25 V
- $I_C = 500\text{ mA}$, - $I_B = 50\text{ mA}$	- V_{BEsat}	–	–	2 V
DC current gain – Kollektor-Basis-Stromverhältnis ¹⁾				
- $V_{CE} = 10\text{ V}$ - $I_C = 100\text{ }\mu\text{A}$	BCW 67A / 68F	h_{FE}	35	–
	BCW 67B / 68G	h_{FE}	50	–
	BCW 67C / 68H	h_{FE}	80	–
- $V_{CE} = 1\text{ V}$ - $I_C = 10\text{ mA}$	BCW 67A / 68F	h_{FE}	75	–
	BCW 67B / 68G	h_{FE}	120	–
	BCW 67C / 68H	h_{FE}	180	–
- $V_{CE} = 1\text{ V}$ - $I_C = 100\text{ mA}$	BCW 67A / 68F	h_{FE}	100	160
	BCW 67B / 68G	h_{FE}	160	250
	BCW 67C / 68H	h_{FE}	250	350
- $V_{CE} = 2\text{ V}$ - $I_C = 500\text{ mA}$	BCW 67A / 68F	h_{FE}	35	–
	BCW 67B / 68G	h_{FE}	60	–
	BCW 67C / 68H	h_{FE}	100	–
Gain-Bandwidth Product – Transitfrequenz				
- $V_{CE} = 5\text{ V}$, - $I_C = 50\text{ mA}$, $f = 100\text{ MHz}$	f_T	–	200 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität				
- $V_{CB} = 10\text{ V}$, $I_E = i_e = 0$, $f = 1\text{ MHz}$	C_{CB0}	–	6 pF	–
Emitter-Base Capacitance – Emitter-Basis-Kapazität				
- $V_{EB} = 0.5\text{ V}$, $I_C = i_c = 0$, $f = 1\text{ MHz}$	C_{EB0}	–	60 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R_{thA}		420 K/W ²⁾
Recommended complementary NPN-transistors Empfohlene komplementäre NPN-Transistoren			BCW 65, BCW 66	
Marking – Stempelung	BCW 67A = DA	BCW 67B = DB	BCW 67C = DC	
	BCW 68F = DF	BCW 68G = DG	BCW 68H = DH	

¹⁾ Tested with pulses $t_p = 300\text{ }\mu\text{s}$, duty cycle $\leq 2\%$ – Gemessen mit Impulsen $t_p = 300\text{ }\mu\text{s}$, Schaltverhältnis $\leq 2\%$

²⁾ Mounted on P.C. board with 3 mm^2 copper pad at each terminal
Montage auf Leiterplatte mit 3 mm^2 Kupferbelag (Lötpad) an jedem Anschluß