

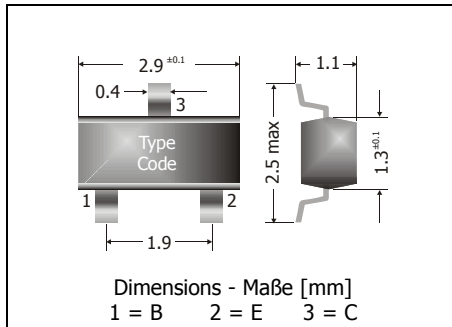
BCW66F ... BCW66H

NPN

Surface Mount General Purpose Si-Epi-Planar Transistors
Si-Epi-Planar Universaltransistoren für die Oberflächenmontage

NPN

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 RolleMaximum ratings ($T_A = 25^\circ\text{C}$)Grenzwerte ($T_A = 25^\circ\text{C}$)

			BCW66F ... BCW66H
Collector-Emitter-volt. – Kollektor-Emitter-Spannung	B open	V_{CE0}	45 V
Collector-Base-voltage – Kollektor-Basis-Spannung	E open	V_{CBO}	75 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 ($T_j = 25^\circ\text{C}$)Kennwerte ($T_j = 25^\circ\text{C}$)

			Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis ²⁾					
$V_{CE} = 10\text{ V}, I_C = 100\ \mu\text{A}$	BCW66F	h_{FE}	35	–	–
	BCW66G	h_{FE}	50	–	–
	BCW66H	h_{FE}	80	–	–
$V_{CE} = 1\text{ V}, I_C = 10\text{ mA}$	BCW66F	h_{FE}	75	–	–
	BCW66G	h_{FE}	100	–	–
	BCW66H	h_{FE}	180	–	–
$V_{CE} = 1\text{ V}, I_C = 100\text{ mA}$	BCW66F	h_{FE}	100	160	250
	BCW66G	h_{FE}	160	250	400
	BCW66H	h_{FE}	250	350	630
$V_{CE} = 2\text{ V}, I_C = 500\text{ mA}$	BCW66F	h_{FE}	–	35	–
	BCW66G	h_{FE}	–	60	–
	BCW66H	h_{FE}	–	100	–

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

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

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

	Min.	Typ.	Max.
Collector-Emitter saturation voltage – Kollektor-Sättigungsspannung ²⁾			
I _C = 100 mA, I _B = 10 mA	–	–	300 mV
I _C = 500 mA, I _B = 50 mA	–	–	700 mV
Base-Emitter saturation voltage – Basis-Sättigungsspannung ²⁾			
I _C = 100 mA, I _B = 10 mA	–	–	1.25 V
I _C = 500 mA, I _B = 50 mA	–	–	2.0 V
Collector-Base cutoff current – Kollektor-Basis-Reststrom			
V _{CB} = 45 V, (E open)	–	–	20 nA
V _{CE} = 45 V, T _j = 125 °C, (E open)	–	–	20 µA
Emitter-Base cutoff current			
V _{EB} = 4 V, (C open)	–	–	20 nA
Gain-Bandwidth Product – Transitfrequenz			
V _{CE} = 5 V, I _C = 50 mA, f = 100 MHz	–	170 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität			
V _{CB} = 10 V, I _E = i _e = 0, f = 1 MHz	–	6 pF	–
Emitter-Base Capacitance – Emitter-Basis-Kapazität			
V _{EB} = 0.5 V, I _C = i _c = 0, f = 1 MHz	–	60 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R _{thA}	< 420 K/W ¹⁾	
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren	BCW68F ... BCW68H		
Marking - Stempelung	BCW66F = EF BCW66G = EG BCW66H = EH		

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 (Löt-pad) an jedem Anschluss