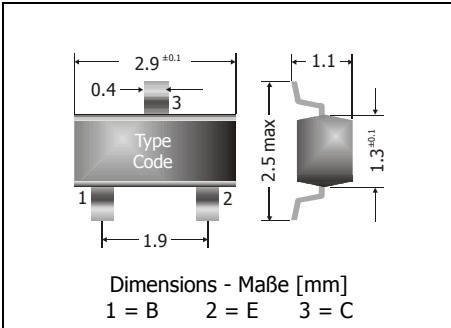


BCW66F ... BCW66H

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

Version 2006-07-31



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)

			BCW66F ... BCW66H
Collector-Emitter-volt. – Kollektor-Emitter-Spannung	B open	V _{CEO}	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°C)

Kennwerte (T_j = 25°C)

			Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis ²⁾					
V _{CE} = 10 V, I _C = 100 µA	BCW66F	h _{FE}	35	–	–
	BCW66G	h _{FE}	50	–	–
	BCW66H	h _{FE}	80	–	–
V _{CE} = 1 V, I _C = 10 mA	BCW66F	h _{FE}	75	–	–
	BCW66G	h _{FE}	100	–	–
	BCW66H	h _{FE}	180	–	–
V _{CE} = 1 V, I _C = 100 mA	BCW66F	h _{FE}	100	160	250
	BCW66G	h _{FE}	160	250	400
	BCW66H	h _{FE}	250	350	630
V _{CE} = 2 V, I _C = 500 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 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 I _C = 500 mA, I _B = 50 mA	V _{CEsat} V _{CEsat}	– –	300 mV 700 mV
Base-Emitter saturation voltage – Basis-Sättigungsspannung ²⁾ I _C = 100 mA, I _B = 10 mA I _C = 500 mA, I _B = 50 mA	V _{BEsat} V _{BEsat}	– –	1.25 V 2.0 V
Collector-Base cutoff current – Kollektor-Basis-Reststrom V _{CB} = 45 V, (E open) V _{CE} = 45 V, T _j = 125°C, (E open)	I _{CB0} I _{CB0}	– –	20 nA 20 µA
Emitter-Base cutoff current V _{EB} = 4 V, (C open)	I _{EB0}	–	20 nA
Gain-Bandwidth Product – Transitfrequenz V _{CE} = 5 V, I _C = 50 mA, f = 100 MHz	f _T	–	170 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 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