

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

		Min.	Typ.	Max.	
Base saturation voltage – Basis-Sättigungsspannung ¹⁾					
$I_C = 10\text{ mA}, I_B = 0.5\text{ mA}$	V_{BEsat}	–	750 mV	–	
$I_C = 50\text{ mA}, I_B = 2.5\text{ mA}$	V_{BEsat}	–	850 mV	–	
DC current gain – Kollektor-Basis-Stromverhältnis ¹⁾					
$V_{CE} = 5\text{ V}, I_C = 10\text{ }\mu\text{A}$	BCW 31	h_{FE}	–	190	–
	BCW 32	h_{FE}	–	330	–
	BCW 33	h_{FE}	–	600	–
$V_{CE} = 5\text{ V}, I_C = 2\text{ mA}$	BCW 31	h_{FE}	110	–	220
	BCW 32	h_{FE}	200	–	450
	BCW 33	h_{FE}	420	–	800
Base-Emitter voltage – Basis-Emitter-Spannung ¹⁾					
$V_{CE} = 5\text{ V}, I_C = 2\text{ mA}$	V_{BEon}	550 mV	–	700 mV	
Gain-Bandwidth Product – Transitfrequenz					
$V_{CE} = 5\text{ V}, I_C = 10\text{ mA}, f = 100\text{ MHz}$	f_T	100 MHz	–	–	
Collector-Base Capacitance – Kollektor-Basis-Kapazität					
$V_{CB} = 10\text{ V}, I_E = i_e = 0, f = 1\text{ MHz}$	C_{CB0}	–	2.5 pF	–	
Noise figure – Rauschzahl					
$V_{CE} = 5\text{ V}, I_C = 200\text{ }\mu\text{A}, R_G = 2\text{ k}\Omega,$ $f = 1\text{ kHz}, \Delta f = 200\text{ Hz}$	F	–	–	10 dB	
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R_{thA}	420 K/W ²⁾		
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren		BCW 29, BCW 30			
Marking – Stempelung		BCW 31 = D1	BCW 32 = D2	BCW 33 = D3	

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