



**Characteristics****Kennwerte**

		(T <sub>j</sub> = 25°C)	Min.	Typ.	Max.
h-Parameters at/bei - V <sub>CE</sub> = 10 V, - I <sub>C</sub> = 1 mA, f = 1 kHz					
Small signal current gain – Kleinsignal-Stromverstärkung	h <sub>fe</sub>	60	–	–	500
Input impedance – Eingangs-Impedanz	h <sub>ie</sub>	1.5 kΩ	–	–	15 kΩ
Output admittance – Ausgangs-Leitwert	h <sub>oe</sub>	1 μS	–	–	30 μS
Reverse voltage transfer ratio – Spannungsrückwirkung	h <sub>re</sub>	0.1*10 <sup>-4</sup>	–	–	8*10 <sup>-4</sup>
Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg. <sup>1)</sup>					
- I <sub>C</sub> = 150 mA, - I <sub>B</sub> = 15 mA	- V <sub>CEsat</sub>	–	–	–	0.40 V
- I <sub>C</sub> = 500 mA, - I <sub>B</sub> = 50 mA		–	–	–	0.75 V
Base-Emitter saturation voltage – Basis-Emitter-Sättigungsspannung <sup>1)</sup>					
- I <sub>C</sub> = 150 mA, - I <sub>B</sub> = 15 mA	- V <sub>BEsat</sub>	0.75 V	–	–	0.95 V
- I <sub>C</sub> = 500 mA, - I <sub>B</sub> = 50 mA		–	–	–	1.3 V
Collector-Emitter cutoff current – Kollektor-Emitter-Reststrom					
- V <sub>CE</sub> = 35 V, - V <sub>EB</sub> = 0.4 V	- I <sub>CEX</sub>	–	–	–	100 nA
Emitter-Base cutoff current – Emitter-Basis-Reststrom					
- V <sub>CE</sub> = 35 V, - V <sub>EB</sub> = 0.4 V	- I <sub>EBV</sub>	–	–	–	100 nA
Gain-Bandwidth Product – Transitfrequenz					
- I <sub>C</sub> = 20 mA, - V <sub>CE</sub> = 10 V, f = 100 MHz	f <sub>T</sub>	200 MHz	–	–	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität					
- V <sub>CB</sub> = 5 V, I <sub>E</sub> = i <sub>e</sub> = 0, f = 1 MHz	C <sub>CB0</sub>	–	–	–	8.5 pF
Emitter-Base Capacitance – Emitter-Basis-Kapazität					
- V <sub>EB</sub> = 0.5 V, I <sub>C</sub> = i <sub>c</sub> = 0, f = 1 MHz	C <sub>EBO</sub>	–	–	–	30 pF
Switching times – Schaltzeiten (between 10% and 90% levels)					
delay time	- I <sub>Con</sub> = 10 mA - I <sub>Bon</sub> = 1 mA I <sub>Boff</sub> = 1 mA	t <sub>d</sub>	–	–	15 ns
rise time		t <sub>r</sub>	–	–	20 ns
storage time		t <sub>s</sub>	–	–	225 ns
fall time		t <sub>f</sub>	–	–	30 ns
Thermal resistance junction to ambient Wärmewiderstand Sperrschicht – Umgebung		R <sub>thA</sub>	< 420 K/W <sup>2)</sup>		

**Disclaimer:** See data book page 2 or [website](#)  
**Haftungsausschluss:** Siehe Datenbuch Seite 2 oder [Internet](#)

1 Tested with pulses t<sub>p</sub> = 300 μs, duty cycle ≤ 2% – Gemessen mit Impulsen t<sub>p</sub> = 300 μs, Schaltverhältnis ≤ 2%  
 2 Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
 Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluss